

# ACE PLANNING

## AND PARKING STRATEGY CABRAL STATION : STOCKTON, CA



Altamont Commuter Express I Planning and Parking Strategy : Cabral Station

ALTAMONT COMMUTER EXPRESS

ACE  
PLANNING  
AND PARKING STRATEGY  
CABRAL STATION : STOCKTON CA

**CONCEPT PLAN** APRIL 12, 2011

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Altamont Commuter Express I Planning and Parking Strategy : Cabral Station

# Project Overview

# 01

Altamont Commuter Express I Planning and Parking Strategy : Cabral Station



The San Joaquin Regional Rail Commission (SJRRC), as the Managing Agency of the Altamont Commuter Express (ACE), has commissioned the creation of this planning and parking strategy document. The source of funding for this study is the San Joaquin County Measure K, which prioritizes transit supportive development. The ACE Cabral Station in eastern downtown Stockton, California is the research area. Specifically this document establishes a plan of action related to community building, sustainable approaches to materials, resource conserving methods, appropriate land use, and parking implementation strategies.

## PROJECT ENVISIONED

The proposal issued by SJRRC requested consultant services for a mixed-use parking structure. This facility was envisioned to be a resource for both the Robert J. Cabral Station Neighborhood and the ACE riders. The mixed-use aspect is added to the project program to foster community, reinforce cultural identity and fill a need for amenities services in the study area. The proposal scope was divided into four “white paper” deliverables. The first paper is “Economic Sustainability”, provided by Bay Area Economics, including market research and project implementation strategies. The second paper, provided by Fehr & Peers was “Transit Sustainability: Potential Growth in Transit.” The transportation effort was focused on ACE rider population trends and the effects of mixed-use development in a half-mile radius around the Cabral Station. The research was conducted by Direct Ridership Modeling (DRM) and Mixed-Use Trip Generation Modeling (MXD). The third white paper, “Design Alternatives”, is the vision and inspirational spirit of the project. This paper is a direct response to ACE project goals and the primary research delivered by both Bay Area Economics and Fehr + Peers. The fourth white paper is “Community Outreach” and is a documentation of the stakeholder workshop. The third and fourth papers are provided by Gensler.

## PROJECT DELIVERED

The process of discovery and primary research in the areas of market economics conditions and parking demand returned key indicators affecting a revision in the final scope of the project. These key indicators include low demand for additional parking through 2015 [Section 3.1.4] and a continuing weak economic trend for retail, office and residential [Section 2.0]. In response to these results the consultant team recommended a revised project scope which was accepted by ACE and is delivered in this document. This document embodies a phased approach to parking in the Cabral Station neighborhood for maximum flexibility in responding to parking demands and economic conditions over a period of time. The project timeline is divided into three event horizons: 2010, 2015 and 2025. The end year was selected based on the start up of High Speed Rail (HSR) service through the Central Valley, currently projected for 2025.

The impact of the planned service enhancements along the ACE corridor and connections to HSR will bring an associated increase in ridership. The substantial increase in ridership reinforces the need for transit-friendly land use regulation in the station area. This will require that the proper zoning controls be in place. Land use advocacy and protection of under utilized parcels is both a process of education and activism to ensure a vibrant future for the area surrounding the Cabral Station.

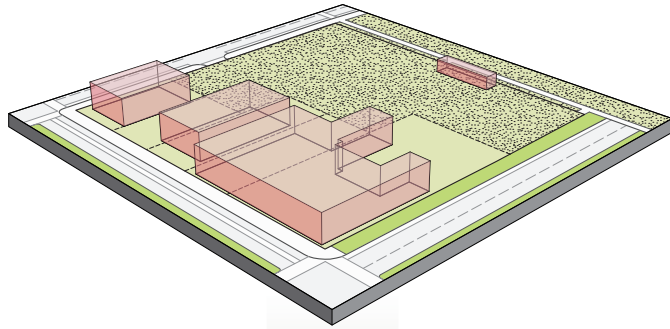
Supporting these concepts of appropriate land use, flexibility and phasing, the consultant team has outlined the four project phases in the effort to build a community supportive, mixed-use structured parking facility. The diagram on the following page illustrates the four project phases. They are: Phase 1 Land Use Advocacy, Phase 2 Land Banking, Phase 3 Interim Use and Phase 4 Mixed-Use.

# 01 Project Overview

**PHASE 1:** Land Use Advocacy

PARTNERING+LAND USE  
TRANSPORTATION+EDUCATION

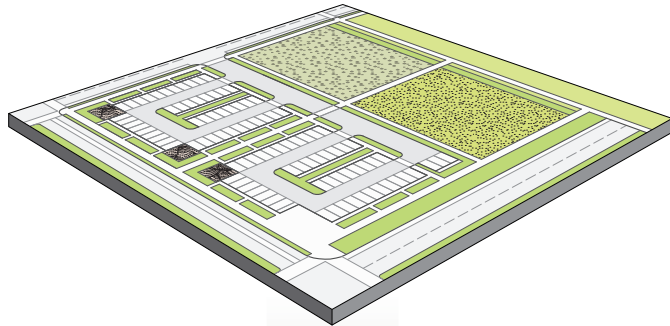
**PHASE 2:** Land Banking



**PHASE 3:** Interim Uses

Phase 3A:  
Half Block of Surface Parking  
and CSA/Community Sports/  
Recreation

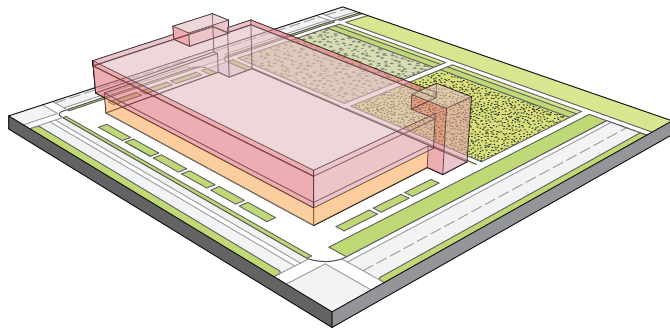
Phase 3B:  
Full Block of Surface Parking



**PHASE 4:** Mixed-Use

Phase 4A:  
Half Block of Structured Parking  
and CSA/Community Sports/  
Recreation

Phase 4B:  
Full Block of Structured Parking



## HOW TO READ THIS DOCUMENT

This document consists of five distinct sections and an Appendix. There are four sections that begin with the primary recommendations in outline form: BAE Section 2, Fehr & Peers Section 3 and Gensler Section 4 & 5. The primary recommendations along with additional suggestions and actions are explained in further detail later in each respective chapter. The sections are based on the consultant content delivered.

**Section 1** is the project overview providing the document summary.

**Section 2**, by BAE, is the Economic Sustainability Section that provides economic trend direction for types of uses and project funding strategy.

**Section 3**, by Fehr & Peers, is the Transit Sustainability Section includes the ACE rider modeling, parking assessment delivering design criteria for the parking quantities and the year of expected parking demand.

**Section 4**, by Gensler, is Site Analysis Section. This is an investigation into opportunities and constraints based on Section 2 and Section 3. The section includes urban design and sustainability approaches and is focused on solutions at the community neighborhood scale.

**Section 5**, by Gensler, is the Site and Design Principles Section. The process and design solutions detailed in this section are a result of the design criteria outline in Section 4.

**Appendix** contains the following two sections:

A.1 is the Davis Langdon order of magnitude cost for the construction. A unit cost is provided for a surface parking space and a structured parking space.

A.2 is a summary of the project stakeholder meeting.

Altamont Commuter Express I Planning and Parking Strategy : Cabral Station



Economic  
Sustainability

02

## 2.0 Market Opportunity Recommendations

1. To make the area more appealing for mixed-use TOD over the long-term, develop new neighborhood amenities, including convenience retail, restaurants, and everyday services; improve pedestrian and bicycle infrastructure; and increase public safety.

Source: [2.1.5] “Economic Sustainability” 2010; BAE.

2. In the short term, it will be important that retail at the Cabral Station does not attempt to compete for the limited retail market that is targeted by the Civic Center retail development. Destination uses (e.g., upscale restaurants, more specialized retail in larger spaces) are likely to be attracted to the Civic Center/Waterfront areas. Retail development in the Cabral Station area should initially focus on limited amounts of convenience retail to serve both transit users and nearby residential neighborhoods.

3. Future development at Cabral Station should consider the use of Tax Increment Financing, because it can help private developers overcome high infrastructure costs that are often barriers to potential development, and Redevelopment funding may fill in financing gaps if conventional lenders might consider initial mixed-use projects in the Cabral neighborhood too risky.

4. Initiate discussion with the City of Stockton to prepare a Station Area Plan as an overlay planning district to promote change of use that is consistent with the increased identity of the Robert J. Cabral Station within Stockton. “Specifically land use controls should be considered to discourage development of new, low-intensity, non transit-friendly uses in close proximity to the transit station. Rezoning of land in the neighborhood, particularly land zoned Industrial Limited (IL), will help to reduce land use conflicts and increase the residential capacity of the neighborhood.”

Source: [2.4.4] “Economic Sustainability” 2010; BAE.

### Executive Summary

The San Joaquin Regional Rail Commission (SJRRRC) is working to expand the role of the organization beyond providing rail service in Stockton, and to improving the neighborhood surrounding the Cabral Station for the Altamont Commuter Express (ACE) rail system in downtown Stockton. Currently, SJRRRC is exploring the idea of building a new, mixed-use parking garage adjacent to the Cabral Station as one step toward neighborhood revitalization. The potential project site, which totals approximately one acre, is located on the western portion of the block that is bounded by the Union Pacific rail line on the east, E. Miner Avenue on the south, E. Lindsay Street on the north, and Aurora Street on the west. The site is immediately to the north of the Cabral Station, across E. Miner Avenue.

### Cabral Station Transit Service

The Altamont Commuter Express picks up passengers at Cabral Station three times every weekday morning on the way to San Jose, and returns the passengers each night. Passengers can access Cabral Station directly by driving and parking next to the station, or by biking or bus. Additional bus connections are available at the Downtown Transit Center, about one-half mile away. The 2009 ACE Rail Passengers Survey indicated that only 9.3 percent of riders boarding at Cabral Station rode a bus to get to the station.

## Cabral Station Passenger Characteristics

SJRRC surveys ACE passengers annually to understand passenger satisfaction with ACE service, understand why passengers ride ACE, gather opinions for related services like shuttles, and identify where improvements are necessary. The 2009 survey gathered key demographic information on ACE passengers boarding at Cabral Station. The typical Cabral Station passenger is 35-54 years of age, resides in Stockton, has an annual household income between \$60,000 and \$124,999, lives 3 to 10 miles from Cabral Station, drove alone prior to using ACE, and works in Santa Clara County.

## Study Area Definitions

For the purposes of this market study, the area surrounding Cabral Station and heading east towards the Waterfront is defined as Central Stockton. Details on the block groups included within Central Stockton are included in the body of the report and shown in Appendix A.

## Existing Land Uses Surrounding the Site

The land surrounding Cabral Station is mainly zoned IL reflecting the historic use of the rail line primarily as a freight corridor. The land currently contains a mix of industrial uses along with some single-family residential units.

## Neighborhood Amenities Near Cabral Station

While there are some parks, schools, and grocery stores within a ½-mile walk of Cabral Station, additional neighborhood amenities are necessary to create a desirable and healthy neighborhood, as documented in the 2005 report entitled the “Robert J. Cabral Station Neighborhood: A Plan for Revitalizing East Downtown Stockton.” Provision of additional neighborhood amenities, as well as improving perceptions of safety and security, will enhance the attractiveness of the station for transit patrons in addition to creating a more conducive environment to market new transit-oriented residential and commercial development in the area.

## Existing Conditions Assessment

### *Demographic and Economic Trends*

The demographic trends indicate that Central Stockton grew steadily from 2000 to 2009, but that Central Stockton has a low number of persons per household and a corresponding low percentage of households with children. Households living in Central Stockton have very low incomes, with only 24 percent of the population with incomes over \$35,000. The ethnic/racial mix of the households shifted significantly from 2000 to 2009. The percent of Hispanic or Latino households increased greatly, to the point where they now comprise the majority of the population in Central Stockton. Central Stockton households live mainly in older, multifamily housing units containing two or more units. There were more jobs in Central Stockton than there were people, as of 2000.

### *Current Real Estate Market Conditions*

The current real estate market conditions in Central Stockton have corresponded with the downturn in the real estate market nationally.

### Retail

The retail market in Central Stockton is limited in that there are few downtown retailers. Beyond the conditions brought on by the current economic recession, Central Stockton is hindered by the limited hours of activity due to the small residential population and the limited hours that office workers occupy the area.

### Office

The office market in Central Stockton, like the office market throughout the city of Stockton, is suffering from a high vacancy rate due to job losses in the city. Many employers are consolidating and downsizing, and few if any new employers are moving into the area. Almost all of the activity in the office market is existing office users moving to new locations.

## Market Opportunities

The Cabral Station area presents unique opportunities to develop transit-oriented development. These opportunities are different, depending on the development horizon. In this study, development opportunities are considered over the short-term horizon, through 2015, and over the mid-term horizon, through 2025. A key distinction between the 2015 and 2025 time horizons is the assumption that, by 2025, the Cabral Station will not only retain its current function as a station for the ACE commuter rail line, but would also serve as a multimodal transit station that would include high speed rail service and/or additional intercity passenger rail service that would link to locations such as Sacramento, Modesto, and beyond. Following are conclusions regarding TOD market opportunities near the Cabral Station:

### *Residential*

**Short-term.** Residential development presents the most attractive short-term development opportunity for TOD in the Cabral neighborhood. It aligns best with the current function of the ACE station, and higher-density residential represents an under-served market niche in Stockton for which there is little planned and proposed competitive supply. Transit riders with a broad range of incomes could potentially afford a range of housing styles and costs. Adding affordable housing into the residential mix in the area would further broaden the base of demand for housing in this area. An initial TOD residential component would likely be relatively small (100 units or less), based on the size of the mixed-use site currently identified, meaning that such a project would need to capture only a very small portion of overall demand in order to be successful. Housing types should target the typical “urban pioneer” households initially, including younger singles and couples without children, who are more likely to be ACE users or employed in the downtown area.

**Mid-term.** In the extended time-frame, the Cabral neighborhood has the potential to support a significant amount of additional residential development, particularly if efforts to revitalize the overall Cabral neighborhood are successful and if additional transit services are developed at the Cabral Station. Rezoning of land in the neighborhood, particularly land zoned IL, will help to reduce land use conflicts and increase the residential capacity of the neighborhood.



### *Retail*

**Short-term.** In the next few years, there is limited potential to develop retail space near the Cabral Station. Transit ridership itself will generate minimal demand for station area retail. Thus, any new retail planned for the area should ideally be designed to cater to the existing downtown residential and daytime employee population, while also offering convenience shopping for transit users. With the Civic Center and Waterfront as the focus retail destination at this time, everyday convenience shopping and services should be emphasized in the Cabral neighborhood. Accordingly, initial mixed-use TOD should include minimal (e.g., less than 10,000 square feet) retail space.

**Mid-term.** Over the extended time frame, overall growth projections for Central Stockton suggest relatively modest increases in residential development, which implies that increases in retail demand should also be modest. Even relatively large increases of housing, by neighborhood standards, would not support very large amounts of new retail; thus, longer-term potential for TOD retail development in the Cabral Station area will depend upon establishing the station area as a destination for visitors from other parts of the city. Developing other uses, such as cultural institutions, entertainment venues, and civic spaces, will help with the “placemaking” effort.

### *Office*

**Short-term.** In the short term, the current function and location of the Cabral Station does not foster attraction of larger corporate or institutional office users. The ACE train functions to transport workers away from the Cabral Station, rather than to bring them to offices in the area. Additionally, the larger office users will tend to gravitate to the existing concentrations of large office space that are concentrated several blocks away in the Civic Center/Waterfront area. The setting of the Cabral neighborhood does create an opportunity for smaller scale, less formal office development that would appeal to local firms such as architects, graphic designers, marketing and PR firms, and other independent professionals whose image is suited to an “edgier” location. Such office space would likely emphasize relatively small spaces, ranging from small professional office suites below 3,000 square feet, to 10,000 - 15,000 square foot spaces that could be subdivided according to tenant needs.

**Mid-term.** Changes in the function of Cabral Station over time may have the greatest potential market-changing effect on the office sector, as opposed to other sectors. If the Cabral Station develops into a multimodal transit hub, that includes high speed rail and/or additional intercity passenger rail services, this would put a spotlight on the Cabral Station as a potential regional office center. Rather than functioning as the fringe of downtown, the Cabral Station area would be viewed as a gateway. With transit services to effectively transport workers to the Cabral station daily, as opposed to away from the station as at present, the Cabral neighborhood would be positioned to attract demand from large scale office users who would want to tap into the convenience of a high speed rail network not only to access the larger Central Valley labor pool, but to facilitate business travel as well. With increasing corporate and government awareness of the sustainability benefits of transit access, office space in the Cabral Station area would

likely realize a price premium. If this scenario comes into play, the Cabral Station area could likely capture a very large portion of the 2.5 million square feet of office space anticipated for Central Stockton through 2025, and may also help Central Stockton capture more than the projected increase, if local land use policies are adjusted to support this redistribution of future office development.

### *Overall*

Given the relatively small size of the site initially targeted for mixed-use TOD, and given the pioneering nature of such an effort in the Cabral Station area, the near-term development plans should be kept relatively small. An initial mixed use project with less than 100 residential units, under 10,000 square feet of retail space, and no more than 10,000 to 15,000 square feet of office space could be considered. Building flexibility into the project design, to allow phasing, and to allow flexibility of use in the commercial components would be advantageous. For example, retail space might initially be used for public meeting space, community service providers, or other interim tenants who could help to activate the area, particularly during hours when commuters are not present. As the economic recovery progresses, these uses might remain, or be replaced by retail uses.

To maximize the long-term potential for TOD in the Cabral Station area, it will be important for SJRRC to advocate for land use changes in the area consistent with the vision of the Cabral Station Neighborhood Revitalization Plan, to ensure that available land in close proximity to the station does not get tied up in lower-intensity, non transit-friendly land uses. Updating zoning, General Plan land use designations, and/or development codes that are consistent with a TOD vision for the area will send clearer signals to property owners and the development community about the long-term intentions for development in the area, and ensure that opportunities are not lost for future transit-supportive development.

### **TOD Lessons Learned**

After examining the unique circumstances surrounding Cabral Station, this section describes the types of development that have been successful and effective around stations with similar characteristics throughout the United States. Based on the experience of TOD projects elsewhere in the U.S., some factors that will be key to enabling TOD to flourish near Cabral Station include:

- Including the TOD project in the context of a long-term plan for the neighborhood.
- Development and linking development to community needs.
- Acquiring and assembling multiple parcels, to facilitate private development.
- Partnering with the local redevelopment authority and/or housing authority.
- Partnering with non-profit organizations to provide affordable housing and other services needed by the community.
- Facilitating needed infrastructure improvements.

## 2.1 Introduction

In order to increase the number of passengers using the ACE commuter train, help decrease the number of car trips made across the Altamont Pass, and improve the neighborhood around the ACE's Cabral Station in downtown Stockton, the San Joaquin Regional Rail Commission (SJRRC) is studying the potential development of a mixed-use parking garage near the Station.

The potential project site is located on the western portion of the block that is bounded by the Union Pacific rail line on the east, E. Miner Street on the south, E. Lindsay Street on the north, and Aurora Street on the west. Six individual parcels comprise the site, for a total of approximately one acre in total. (Source: Assessor's Parcel #s: 15110001, 1511002, 1511005, 1511006, 1511007, 1511008).

The site is immediately to the north of the Cabral Station, across E. Miner Street (which is submerged at this location to provide a below-grade crossing of the rail lines), and is located within the City of Stockton's Merged Waterfront Redevelopment Area.

The development of a mixed-use parking garage is seen as a way to enhance the experience of ACE train passengers who use the Cabral Station, which will encourage additional ridership. Additionally, if transit-supportive uses, such as residential units for people who commute to Alameda and Santa Clara Counties, can be attracted to the station area this can help to expand the passenger base for ACE.

This section presents a market opportunity assessment evaluating the economic and demographic trends within Stockton, current and anticipated real estate market conditions, and the potential competitiveness of the project given the projected market area growth and other planned and proposed projects. In addition to research on local market-area conditions defined above, the section also contains an outline of lessons learned from TOD projects elsewhere in the U.S. that can be adapted for the development of the project area.

### 2.1.1 Cabral Station Existing Transit Service

The ACE train transports passengers every weekday morning starting in Stockton and ending in San Jose, and makes the return trip at night. Weekday morning trains leave Cabral for San Jose at 4:20 a.m., 5:35 a.m., and 6:40 a.m. Along the way, the train stops at the Lathrop/Manteca, Tracy, Vasco, Livermore, Pleasanton, Fremont, and Great America stations, before terminating at the San Jose station. Weekday evening trains depart from San Jose station at 3:35 p.m., 4:35 p.m., and 5:35 p.m., and return to Cabral Station at 5:45 p.m., 6:45p.m., and 7:45p.m. (Source: Personal Communication. ACE staff. December 8, 2009: There were four trains in operation from August 26, 2008 until November 2, 2009, when the fourth train, the train that left the latest in the morning was cancelled.) ACE does not offer weekend service.

The ACE train first went into service in 1998 with two trains, (Source: History of ACE Passenger Rail Service. <http://www.acerail.com/about-ace/history-of-ace/history-of-ace.htm>. Accessed on December 4, 2009). and daily passenger numbers have risen from around 1,300 daily passengers in 1998 to the current year-to-date average of about

2,500 total passengers per day on all trains. Each train can accommodate a maximum of 2,722 passengers, so there is plenty of room to accommodate additional passengers on the three existing trains (Source: Train Specifications. <http://www.acerail.com/about-ace/history-of-ace/history-of-ace.htm>. Accessed on December 4, 2009).

Buses carry passengers directly to Cabral Station. Also, bus stops are located approximately 0.3 miles away at the intersection of E. Miner Avenue and N. Stanislaus Street. Bus numbers 76, 77, 80, 83, 26, and 370 stop at this location. Bus 76 carries passengers from as far west as Boggs Tract Community Center and to the intersection of F Street and Alpine Street to the north. Bus 77 serves up to Waterloo Street to the north, and to Big Wheel Mobile Home Park to the east. The areas surrounding Weberstown Mall to the north and Farmington Street to the southeast are served by Bus 80. Bus 83 brings passengers from as far east as Elmwood Street. Finally, buses 26 and 370 transport people from Lathrop, Tracy, the University of the Pacific and as far south as Ralph Avenue to the intersection of E. Miner Avenue and N. Stanislaus Street. In addition, the Downtown Transit Center is about one-half mile away and buses from all over the city arrive at this station. The 2009 ACE Rail Passenger Survey gathered responses from 97 ACE passengers boarding at Cabral Station, and indicate that only about 9.3 percent of surveyed riders rode a bus to get to the station (Source: Altamont Commuter Express Passenger Survey, 2009).

## 2.1.2 Cabral Station Passenger Characteristics

Current ridership data collected by ACE between October 26, 2009 and November 1, 2009 indicate that, on average, 263 passengers boarded the ACE train at the Cabral Station each day. Detailed statistics for passengers boarding at Cabral Station from the 2009 Rail Passenger Survey indicate that 71.2 percent of passengers boarding at Cabral either drove alone to the station (36.1 percent) or were dropped-off at the station (35.1 percent). Of the passengers boarding at Cabral, 23.7 percent traveled to Alameda County stations, 43.3 percent traveled to Santa Clara County stations, 7.2 percent traveled to other counties, and 5.2 percent failed to respond to the question. None of the surveyed passengers boarding at Cabral were getting off at the Lathrop/Manteca or Tracy stations.

Additional detailed demographic information for ACE passengers boarding at Cabral Station from the 2009 survey indicates that the “persona” of the typical ACE rider is as follows:

- 35-54 years of age
- Resides in Stockton
- \$60,000 - \$124,999 household income
- Lives within 3-10 miles of Cabral Station
- ‘Drove Alone’ prior to riding ACE
- Works in Santa Clara County

### 2.1.3 Study Area Definitions

For the purposes of compiling demographic and economic data to characterize conditions in the vicinity of the Cabral Station, BAE defined a Central Stockton study area. U.S. Census Block Groups define the study area, as shown in Appendix B beginning on page 2.49. This area is generally encompassed by Harding (north), Wilson (east), Highway 4 (south), and Edison and the waterfront (west). The area includes the following U.S. Census block groups:

- 060770001001
- 060770001002
- 060770001005
- 060770003001
- 060770003003
- 060770003004
- 060770004011
- 060770004012
- 060770004021
- 060770004022
- 060770004023
- 060770004024
- 060770004025
- 060770005001
- 060770005002
- 060770006001

The Central Stockton area contains Cabral Station, the proposed mixed-use site, and the majority of downtown leading up to the waterfront. As appropriate, data for the Central Stockton study area are compared to data for the City of Stockton as a whole, plus California, to highlight the study area's unique characteristics

### 2.1.4 Existing Land Uses Surrounding the Site

The land in the Cabral Station area that is adjacent to rail line is zoned Industrial Light, reflecting the historic use of the rail line primarily as a freight corridor. The IL zoning extends from one to two blocks on either side of the rail line. Other zoning on nearby parcels includes Downtown Commercial and General Commercial. In addition to the ACE station facilities, the immediate neighborhood currently contains a mix of industrial uses along with some single-family residential units.

### 2.1.5 Neighborhood Amenities Near Cabral Station

Neighborhood features, such as parks, schools, libraries, everyday shopping, restaurants, and entertainment uses, are valuable amenities for TOD. Residents of TOD typically are attracted to the higher density living by the opportunity to have convenient access to venues for social interaction, shopping, and recreation. The appeal of neighborhoods where TODs are successful is that residents, transit patrons, and people working in the area can easily walk to these attractions.

The closest grocery stores are along Wilson Way and include Food 4 Less, and Smart & Final, with Grocery Outlet only slightly more than one half mile from the station. Nearby schools include Richard A. Pittman Elementary and additional continuing education and charter schools. Finally, to serve local residents, the nearest parks are Constitution Park

at the 400 block of Union Street, Fremont Park in the 300 block of Fremont Street and Martin Luther King Plaza at the 000 block of East Oak Street. The Caesar Chavez Central Library is located 0.7 miles away at 605 North El Dorado Street.

There is a limited selection of neighborhood amenities within the easily walkable, scale of one-half mile from the Cabral Station. This provides a starting point to develop a neighborhood that is supportive of TOD; however, ideally, there would be a greater concentration of amenities in close proximity. Building the concentration of neighborhood amenities should be a priority for SJRRC and the city of Stockton over time, to make the neighborhood successful and attractive for TOD over the long-term. This would include additional convenience retail, along with a range of restaurants and everyday services within easy walking distance of the Station.

## 2.2 Demographic and Economic Trends

This section of the report compiles information on local demographics from the 2000 Census, and current estimates from Claritas, a private data vendor, for the Central Stockton study area, City of Stockton, and California. Additional data for this section come from the 2000 census Transportation Planning Package, California Department of Finance (DoF), and the California Employment Development Department (EDD).

The number of Hispanic or Latino households in Central Stockton increased from 2,138 to 2,739, for a 52 percent increase. Meanwhile, the number of non-Hispanic or Latino households declined over the same period of time, from 3,334 to 2,980. The increasing concentration of Hispanic and Latino households signals expanding market opportunities for ethnically-oriented retail, restaurants, and services in the neighborhood. Additionally, cultural change in the neighborhood may create the need for residential development tailored to larger household sizes and/or the desire for multiple family generations to live together.

### 2.2.1 Population and Household Trends

Tables 2 through 6 contain data on population and household growth from 2000 to 2009, along with detailed information on household size, the presence of children, status as either owners or renters, and household income.

#### *Population Growth Trends*

Central Stockton experienced a nearly four percent increase in population from 2000 (approximately 14,500 persons) to 2009 (about 15,100 persons). The rate of population growth in Central Stockton is significantly below that of the city of Stockton, which grew by around 21 percent over the same period, from approximately 243,800 people in 2000 to 295,700 in 2009. California's population growth rate was in-between that of Central Stockton and the city of Stockton at nearly 1.1 percent from 2000 to 2009. From 2000 to 2009, Central Stockton only captured about 600, or just over one percent, of the city of Stockton's nearly 52,000 person population increase.

### *Household Growth Trends*

The rate of household growth followed trends in population growth, with the smallest household growth from 2000 to 2009 occurring in Central Stockton, the greatest increase in the city of Stockton, and the California growth rate in the middle. The number of households in Central Stockton rose by close to 300 (about a five percent increase in total households). In the city of Stockton, the increase was 15,400 households (around a 20 percent increase in total households), between the years 2000 and 2009. The rate of household growth in California was about nine percent over the same period.

### *Household Size*

The average household size in Central Stockton was below that of the City of Stockton and California, in both 2000 and 2009. In 2000, the average household size in Central Stockton was 2.56 persons and it decreased slightly, to 2.53, by 2009. The average household size in the city of Stockton increased minimally from 3.04 to 3.09 persons between 2000 and 2009, while the average household size in California also rose from 2.87 in 2000 to 2.92 in 2009.

### *Household Type*

Splitting the total number of households into those with children and those without children indicates that Central Stockton had a low percentage of households with children in 2000, and that by 2009 the percent of households with children was significantly below the percentages seen in both the city of Stockton and California. Of the total households in Central Stockton, about 41 percent had children in 2000, and the percentage fell to 36.5 percent by 2009. Meanwhile, in the city of Stockton, the percentage of households with children remained high from 2000 to 2009, at approximately 46 percent, and in California, the percentage of households with children stayed at about 40 percent over the same period.

### *Household Tenure*

The homeownership rate in Central Stockton is very low, at about 15 percent, and is in stark contrast to the ownership rates in both the city of Stockton and California, where the ownership rates are above 50 percent. The Central Stockton homeownership rate has been relatively stable since 2009. In the city of Stockton, the owner households equaled about 52 percent of total households, and the percentage rose to 56 percent in 2009. In California, the homeownership rate was 63 percent in 2000, and fell to about 58 percent in 2009.

### *Age Distribution*

The median age in Central Stockton (29.8 in 2000 and 31.2 in 2009) closely resembles that of the city of Stockton (29.8 in 2000 and 30.7 in 2009), and the median in both areas is lower than the median in California, in both 2000 (median age of 33.3) and 2009 (median age of 34.9).

Across all three jurisdictions, the age distribution stayed consistent from 2000 until 2009. In Central Stockton in 2009, about 30 percent of the total population was under the age of 18, which is about the same as the 31 percent in the city of Stockton, and above the 26 percent in California.

### *Household Income Distribution*

The household income distribution in Central Stockton is heavily weighted towards those households with incomes of less than \$15,000, which accounted for 50 percent of the total household population in 1999, and 45 percent in 2009. An additional 18 percent of total households in Central Stockton in both 2000 and 2009 had incomes within the range of \$15,000 to \$24,999, and 12 percent more households had incomes from \$25,000 to \$34,999. The remaining 20 percent of total households in 2000 and 24 percent of total households in 2009 had incomes of \$35,000 or more in Central Stockton. In contrast, by 2009, 17 percent of city of Stockton households incomes of less than \$15,000, 13 percent had incomes ranging from \$15,000 to \$24,999, 11 percent had incomes of \$25,000 to \$34,999, and 60 percent of total households had incomes \$35,000 or more. Furthermore, in California, by 2009 around 71 percent of households had incomes of \$35,000 or more.

The inflation-adjusted median household income fell from \$19,900 to \$17,600 in Central Stockton, between 1999 and 2009. The city of Stockton had higher inflation-adjusted median household incomes in both 2000 and 2009, but the inflation adjusted median also decreased from 1999 to 2009, from around \$47,200 in 1999 to \$44,500. The California inflation-adjusted median income was even higher, at about \$63,400 in 1999, but fell to \$60,133 in 2009.

### *Households by Race and Ethnicity*

The race/ethnicity data in Table 5 show that households of Hispanic or Latino ethnicity represent the largest percentage of total households of any race/ethnicity, in Central Stockton, at 52 percent of total households in 2009. In comparison, households of Hispanic or Latino ethnicity represented 33 percent of total households in the city of Stockton and 26 percent of total households in California in 2009. In 2000, Central Stockton had a population that was 31 percent white, 15 percent black, 10 percent Asian, and 39 percent Hispanic or Latino. By 2009, Central Stockton had experienced a major shift, with a decrease in the percentage of whites to 21 percent, and an increase in Hispanic or Latino, to 52 percent. The city of Stockton, moreover, had a higher percent of whites (43 percent of the total population), and Asian (15 percent of the population), but a lower percent of Hispanic or Latinos, at 26 percent. Then, through 2009, the city of Stockton also experienced a decrease in the percent of white households, and an increase in Hispanic or Latino households, albeit to a lesser degree than Central Stockton. California as a whole, compared to both Central Stockton and the city of Stockton, had a higher percent of White households in 2000, (58 percent of total households), and a lower percent of Hispanic or Latino households (22 percent of total households). By 2009, California had transitioned to a lower percent of white households (53 percent of total households), and a higher percentage of Hispanic or Latino households (26 percent of total households).



## 2.2.2 Housing Conditions and Trends

### *Housing Stock Characteristics*

Table 6 shows the total number of housing units and the year built for Central Stockton, city of Stockton, and California, as of 2000. The housing stock in Central Stockton contained about 6,200 units, which tend to be relatively old. Almost 32 percent of the housing units were built in 1939 or earlier, with an additional 44 percent built from 1940 to 1969, and the remaining 25 percent built from 1970 to March 2000. The city of Stockton had a newer housing stock, with only 8.5 percent of the housing units built in 1939 or earlier, 33 percent built from 1940 to 1969, and nearly 60 percent from 1970 to 2000. The recent residential building boom in the city of Stockton since 2000 contributes to an even higher percentage of total housing units citywide built after 1970. California has a slightly older housing stock when compared to the city of Stockton, with about 9.4 percent of housing stock built in 1939 or earlier, 40 percent between 1940 and 1969, and 50 percent from 1970 to March 2000.

### *Housing Unit Types*

There are a limited number of single-family detached and attached housing units in Central Stockton (27 percent of total units), while single-family detached and attached housing makes up 68 percent and 64 percent of the total housing units in the city of Stockton and California, respectively. Central Stockton, therefore, has relatively large proportions of multifamily housing in buildings of two to four units (18 percent of total units), five to nine units (11 percent of total units), and 10 or more units (44 percent of total units), compared to both the City of Stockton or California.

### *Housing Vacancy Status*

Table 7 presents the residential vacancy rate in Central Stockton, which was 10 percent in 2000. This was significantly higher than in the city of Stockton (four percent of total housing units), and in California (six percent of total housing units).

## 2.2.3 Employment Trends

Tables 8 and 9 contain information on the jobs by industry in Central Stockton, the city of Stockton, and California, in 2000, as well as countywide job trends through 2008. Tables 10 and 11 examine where those employed in Stockton live, and where those who live in Stockton travel for work.

### *Jobs*

Table 8 compares the jobs by industry as of 2000 for Central Stockton, the city of Stockton, and California. There were around 18,300 jobs in Central Stockton as of 2000, with the highest percentage of jobs in the educational, health, and social services sector (27.5 percent of total jobs), followed by nearly 19 percent in the public administration

sector, and about 11 percent in the finance, insurance and real estate sector. Of the approximately 88,600 jobs in the city of Stockton, there was a similarly high percentage of jobs in the educational, health, and social services sector, but the next highest percentage of jobs was in the retail trade sector (about 12 percent of total jobs), and the manufacturing sector (around nine percent of total jobs). Public administration, with about six percent of the total jobs in the city of Stockton, had a much smaller role than in Central Stockton.

### *Countywide Job Trends*

Table 9 provides jobs data for San Joaquin County (Stockton Metropolitan Statistical Area) for both 2000 and 2008. The total jobs in the county grew by about nine percent for the years 2000 through 2008. The industry sectors that contributed the most to this overall increase in jobs were the education and health service sector, with the addition of 6,500 jobs (a 29.5 percent increase from 2000 to 2008), the wholesale trade sector, which increased by 4,100 jobs (about a 64 percent increase from 2000 to 2008), and the government sector, which gained 3,300 jobs over the same time period (about a nine percent increase). The most significant job loss over the period occurred in the manufacturing sector, which lost 3,300 jobs (a decline of around 13 percent), along with the loss of 1,800 jobs in the farm sector.

### *Workers by Place of Residence*

Of the approximately 88,000 workers employed in Stockton, about 41 percent commute into the Bay Area from outlying areas. Almost 29 percent of Stockton workers commute in from other cities or unincorporated areas of San Joaquin County. About 4.4 percent of Stockton's workers commute from Stanislaus County, and about 3.4 percent commute in from Sacramento County. The remaining 4.3 percent of Stockton workers commute in from a range of other locations. Based on this information, about 36,000 workers regularly commute into the city of Stockton from outside the city limits.

### *Residents by Place of Work*

Considering that there are about 86,500 employed Stockton residents, and about 88,000 workers employed in Stockton, 36,000 of which are not Bay Area residents, many Stockton residents commute out of Stockton for work. About 34,200 employed Stockton residents commute out of the city for work (about 40 percent of total employed Stockton residents). About 25 percent commute to other locations in San Joaquin County outside of Stockton, while others commute to Alameda County (about four percent of total employed Stockton residents), Sacramento County (about three percent of total employed Stockton residents), Santa Clara County (about two percent of total employed Stockton residents), and elsewhere in California (about seven percent of total employed Stockton residents).

**Table 1: Neighborhood Amenities Closest to Cabral Station**

<b>Name</b>	<b>Street Address</b>	<b>Distance from Site (miles)</b>
<b>Nearest Grocery Stores</b>		
Smart & Final	147 N. Wilson Way	0.4
Food 4 Less	678 N. Wilson Way	0.5
Grocery Outlet	1060 N. Wilson Way	0.7
<b>Nearest Bus Stops</b>		
San Joaquin RTD, Buses 26, 76, 7, 80, 83, 370	N. Stanislaus Street and E. Miner Ave.	0.2
San Joaquin RTD, Buses 76, 81	N. Stanislaus Street and E. Weber Ave.	0.3
<b>Nearest Schools</b>		
Jane Frederick Continuation High	1141 E. Weber Ave	0.2
Richard A. Pittman Elementary School	701 E. Park St	0.3
Head Start Child Development Council	425 N. California St. # 2	0.3
Langston Hughes Academy (Charter School)	612 E. Magnolia St., Weber Bldg.	0.6
<b>Nearest Parks</b>		
Constitution Park	400 N. Union St.	0.2
Fremont Park	300 E. Fremont St.	0.4
Independence Park	E. Market St. and Aurora St.	0.4
Martin Luther King Plaza	E Fremont St. and N. El Dorado St.	1.3
<b>Nearest Libraries</b>		
Cesar Chavez Central Library	605 North El Dorado St.	0.7

Sources: BAE, 2009

**Table 2: Population and Household Trends, 2000 and 2009**

<u>Central Stockton (a)</u>	<u>2000</u>	<u>2009 (est.)</u>	<u>Percent Change 2000-2009</u>
<b>Population</b>	14,542	15,101	3.8%
<b>Households</b>	5,472	5,769	5.4%
<b>Average Household Size</b>	2.56	2.53	
<b>Household Type</b>			
HH with Children	40.8%	36.5%	
HH without Children	62.6%	63.5%	
<b>Tenure</b>			
Owner	15.2%	14.7%	
Renter	84.8%	85.3%	
<u>City of Stockton</u>	<u>2000</u>	<u>2009 (est.)</u>	<u>Percent Change 2000-2009</u>
<b>Population</b>	243,771	295,655	21.3%
<b>Households</b>	78,556	93,962	19.6%
<b>Average Household Size</b>	3.04	3.09	
<b>Household Type</b>			
HH with Children	46.0%	46.6%	
HH without Children	54.0%	53.4%	
<b>Tenure</b>			
Owner	51.6%	55.6%	
Renter	48.4%	44.4%	
<u>California</u>	<u>2000</u>	<u>2009 (est.)</u>	<u>Percent Change 2000-2009</u>
<b>Population</b>	33,871,648	37,559,728	10.9%
<b>Households</b>	11,502,870	12,553,966	9.1%
<b>Average Household Size</b>	2.87	2.92	
<b>Household Type</b>			
HH with Children	39.7%	40.0%	
HH without Children	60.3%	60.0%	
<b>Tenure</b>			
Owner	63.0%	57.7%	
Renter	46.1%	42.3%	

Note:

(a) Contains the following Census blocks: 060770001001, 060770001002, 060770001005, 060770003001, 060770003003, 060770003004, 060770004011, 060770004012, 060770004021, 060770004022, 060770004023, 060770004024, 060770004025, 060770005001, 060770005002, and 060770006001 . A map is included as Appendix A.

Sources: Claritas, 2009; BAE, 2009.

**Table 3: Age Distribution, 2000 and 2009**

Age Range	Central Stockton			
	2000		2009 (Est.)	
	Number	Percent of Total	Number	Percent of Total
Under 18	4,420	30%	4,502	30%
18 - 24	1,774	12%	1,512	10%
25 - 34	2,144	15%	2,569	17%
35 - 44	2,020	14%	2,121	14%
45 - 54	1,568	11%	1,716	11%
55 - 64	974	7%	1,144	8%
65 and over	1,642	11%	1,537	10%
<b>Total Population</b>	<b>14,542</b>	<b>100%</b>	<b>15,101</b>	<b>100%</b>
<b>Median Age</b>	<b>29.8</b>		<b>31.2</b>	

Age Range	City of Stockton			
	2000		2009 (Est.)	
	Number	Percent of Total	Number	Percent of Total
Under 18	79,084	32%	90,602	31%
18 - 24	26,851	11%	31,367	11%
25 - 34	33,190	14%	45,532	15%
35 - 44	33,544	14%	39,324	13%
45 - 54	28,830	12%	35,022	12%
55 - 64	17,297	7%	25,801	9%
65 and over	24,975	10%	28,007	9%
<b>Total Population</b>	<b>243,771</b>	<b>100%</b>	<b>295,655</b>	<b>100%</b>
<b>Median Age</b>	<b>29.8</b>		<b>30.7</b>	

Age Range	California			
	2000		2009 (Est.)	
	Number	Percent of Total	Number	Percent of Total
Under 18	9,249,829	27%	9,586,791	26%
18 - 24	3,366,030	10%	3,871,974	10%
25 - 34	5,229,062	15%	5,352,561	14%
35 - 44	5,485,341	16%	5,450,985	15%
45 - 54	4,331,635	13%	5,258,771	14%
55 - 64	2,614,093	8%	3,838,115	10%
65 and over	3,595,658	11%	4,200,531	11%
<b>Total Population</b>	<b>33,871,648</b>	<b>100%</b>	<b>37,559,728</b>	<b>100%</b>
<b>Median Age</b>	<b>33.3</b>		<b>34.9</b>	

Note:

(a) Contains the following Census blocks: 060770001001, 060770001002, 060770001005, 060770003001, 060770003003, 060770003004, 060770004011, 060770004012, 060770004021, 060770004022, 060770004023, 060770004024, 060770004025, 060770005001, 060770005002, and 060770006001. A map is included as Appendix A.

Sources: Claritas, 2009; BAE, 2009.

## Table 4: Household Income Distribution, 1999 and 2009

Income Range	Central Stockton				City of Stockton				California			
	1999		2009 (Est.)		1999		2009 (Est.)		1999		2009 (Est.)	
	Number	Percent of Total	Number	Percent of Total	Number	Percent of Total	Number	Percent of Total	Number	Percent of Total	Number	Percent of Total
Less than \$15,000	2,820	50%	2,587	45%	16,787	21%	15,658	17%	1,615,869	14%	1,316,149	10%
\$15,000 - \$24,999	1,035	18%	1,065	18%	11,926	15%	11,792	13%	1,318,246	11%	1,118,715	9%
\$25,000 - \$34,999	664	12%	717	12%	10,130	13%	10,567	11%	1,315,085	11%	1,150,974	9%
\$35,000 - \$49,999	604	11%	633	11%	12,559	16%	13,771	15%	1,745,961	15%	1,675,433	13%
\$50,000 - \$74,999	278	5%	485	8%	13,767	18%	17,546	19%	2,202,873	19%	2,301,254	18%
\$75,000 - \$99,999	132	2%	127	2%	6,980	9%	10,537	11%	1,326,569	12%	1,660,374	13%
\$100,000 - \$149,999	64	1%	110	2%	4,360	6%	9,378	10%	1,192,618	10%	1,843,271	15%
\$150,000 or More	39	1%	45	1%	2,085	3%	4,713	5%	794,799	7%	1,487,796	12%
<b>Total Households (a)</b>	<b>5,636</b>	<b>100%</b>	<b>5,769</b>	<b>100%</b>	<b>78,594</b>	<b>100%</b>	<b>93,962</b>	<b>100%</b>	<b>11,512,020</b>	<b>100%</b>	<b>12,553,966</b>	<b>100%</b>
<b>Unadjusted Median Household Income</b>	<b>1999</b>		<b>2009</b>		<b>1999</b>		<b>2009</b>		<b>1999</b>		<b>2009</b>	
	<b>\$14,986</b>		<b>\$17,609</b>		<b>\$35,511</b>		<b>\$44,477</b>		<b>\$47,744</b>		<b>\$60,133</b>	
<b>Adjusted Median Household Income (b)</b>	<b>\$19,908</b>		<b>\$17,609</b>		<b>\$47,174</b>		<b>\$44,477</b>		<b>\$63,426</b>		<b>\$60,133</b>	

Notes:

(a) Figures in columns may not sum to equal totals presented in Table 2 due to rounding.

(b) The 1999 median household income estimates are adjusted to represent 2009 dollars using the California Department of Finance Consumer Price Index for all Urban Consumers.

Sources: Claritas, 2009; DoF, 2009; BAE, 2009.

## Table 5: Households by Race/Ethnicity, 2000 and 2009

Household Race/Ethnicity (b)	Central Stockton				City of Stockton				California			
	2000		2009 (Est.)		2000		2009 (Est.)		2000		2009 (Est.)	
	Number	Percent of Total	Number	Percent of Total	Number	Percent of Total	Number	Percent of Total	Number	Percent of Total	Number	Percent of Total
<b>Not Hispanic or Latino</b>												
White	1,691	31%	1,196	21%	33,826	43%	30,793	33%	6,697,480	58%	6,646,520	53%
Black or African American	825	15%	1,007	17%	9,013	11%	12,513	13%	775,250	7%	803,612	6%
American Indian and Alaska Native	69	1%	83	1%	498	1%	538	1%	62,891	1%	66,664	1%
Asian	524	10%	478	8%	11,825	15%	15,641	17%	1,096,371	10%	1,385,734	11%
Native Hawaiian and Other Pacific Islander	10	0%	8	0%	216	0%	328	0%	26,802	0%	31,443	0%
Some Other Race	13	0%	11	0%	166	0%	165	0%	21,088	0%	21,913	0%
Two or More Races	202	4%	197	3%	2,546	3%	3,165	3%	256,300	2%	312,309	2%
<b>Subtotal: Not Hispanic or Latino</b>	<b>3,334</b>	<b>61%</b>	<b>2,980</b>	<b>48%</b>	<b>58,090</b>	<b>74%</b>	<b>63,143</b>	<b>67%</b>	<b>8,936,182</b>	<b>78%</b>	<b>9,268,195</b>	<b>74%</b>
<b>Hispanic or Latino</b>												
White	747	14%	982	17%	7,523	10%	11,929	13%	1,080,145	9%	1,373,828	11%
Black or African American	23	0%	22	0%	202	0%	280	0%	18,229	0%	23,142	0%
American Indian and Alaska Native	47	1%	67	1%	371	0%	555	1%	38,648	0%	49,647	0%
Asian	19	0%	25	0%	333	0%	469	0%	10,831	0%	13,954	0%
Native Hawaiian and Other Pacific Islander	2	0%	2	0%	41	0%	68	0%	2,672	0%	3,579	0%
Some Other Race	1,140	21%	1,488	25%	10,609	14%	15,421	16%	1,257,149	11%	1,620,124	13%
Two or More Races	160	3%	203	4%	1,387	2%	2,007	2%	159,014	1%	201,467	2%
<b>Subtotal: Hispanic or Latino</b>	<b>2,138</b>	<b>39%</b>	<b>2,789</b>	<b>52%</b>	<b>20,466</b>	<b>26%</b>	<b>30,819</b>	<b>33%</b>	<b>2,566,688</b>	<b>22%</b>	<b>3,285,771</b>	<b>26%</b>
<b>Total: Households (c)</b>	<b>5,472</b>	<b>100%</b>	<b>5,769</b>	<b>100%</b>	<b>78,556</b>	<b>100%</b>	<b>93,962</b>	<b>100%</b>	<b>11,502,870</b>	<b>100%</b>	<b>12,553,966</b>	<b>100%</b>

Notes:

(a) Contains the following Census blocks: 060770001001, 060770001002, 060770001005, 060770003001, 060770003003, 060770003004, 060770004011, 060770004012, 060770004021, 060770004022, 060770004023, 060770004024, 060770004025, 060770005001, 060770005002, and 060770006001. A map is included as Appendix A.

(b) Based on race/ethnicity of the head of household. Race/ethnicity is self-reported.

(c) Figures in columns may not sum to equal totals presented in Table 2 due to rounding.

Sources: Claritas, 2009; BAE, 2009.

**Table 6: Housing Stock by Year Built, 2000**

Year Structure Built	Central Stockton		City of Stockton		California	
	Number	Percent of Total	Number	Percent of Total	Number	Percent of Total
1999 to March 2000	6	0.1%	1,541	1.9%	191,345	1.6%
1995 to 1998	124	2.0%	4,969	6.1%	541,056	4.4%
1990 to 1994	58	0.9%	6,659	8.1%	845,325	6.9%
1980 to 1989	374	6.1%	14,592	17.8%	2,098,028	17.2%
1970 to 1979	958	15.5%	20,352	24.8%	2,504,157	20.5%
1960 to 1969	1,233	20.0%	11,924	14.5%	2,047,205	16.8%
1950 to 1959	845	13.7%	9,065	11.0%	1,895,166	15.5%
1940 to 1949	625	10.1%	6,082	7.4%	939,717	7.7%
1939 or earlier	1,951	31.6%	6,941	8.5%	1,152,550	9.4%
<b>Total Units (a)</b>	<b>6,174</b>	<b>100%</b>	<b>82,125</b>	<b>100%</b>	<b>12,214,549</b>	<b>100%</b>

Note:

(a) Figures in columns may not sum to equal totals presented in Table 7 due to rounding.

Sources: 2000 Census; BAE, 2009.

**Table 7: Housing Stock Characteristics, 2000**

	Central Stockton		City of Stockton		California	
	Number	Percent of Total	Number	Percent of Total	Number	Percent of Total
<b>Total Housing Units</b>						
Occupied Housing Units	5,546	90%	78,522	96%	11,502,870	94%
Vacant Housing Units	628	10%	3,603	4%	711,679	6%
<b>Units in Structure by Structure Type</b>						
1-Unit Detached	1,457	24%	49,137	60%	6,883,493	56%
1-Unit Attached	201	3%	6,599	8%	931,873	8%
Multifamily 2 to 4 Units	1,087	18%	8,422	10%	1,024,803	8%
Multifamily 5 to 9 Units	652	11%	3,641	4%	722,827	6%
Multifamily 10 or More Units	2,742	44%	13,037	16%	2,081,885	17%
Mobile Home or Other	35	1%	1,289	2%	569,668	5%
<b>Total Units (a)</b>	<b>6,174</b>	<b>100%</b>	<b>82,125</b>	<b>100%</b>	<b>12,214,549</b>	<b>100%</b>

Note:

(a) Figures in columns may not sum to equal totals presented in Table 6 due to rounding.

Sources: 2000 Census; BAE, 2009.

**Table 8: Employment by Industry, 2000**

Industry (a)	Central Stockton		City of Stockton		California	
	Employed Workers	Percent of Total	Employed Workers	Percent of Total	Employed Workers	Percent of Total
Agriculture, Forestry, Fishing, Hunting, and Mining	320	1.7%	1,815	2.0%	272,730	1.9%
Construction	814	4.4%	5,375	6.1%	889,430	6.1%
Manufacturing	654	3.6%	7,885	8.9%	1,885,815	13.0%
Wholesale Trade	519	2.8%	4,075	4.6%	583,520	4.0%
Retail Trade	828	4.5%	10,925	12.3%	1,599,575	11.0%
Transportation, Warehousing, and Utilities	409	2.2%	5,380	6.1%	665,355	4.6%
Information	674	3.7%	2,330	2.6%	565,995	3.9%
Finance, Insurance, and Real Estate	1,965	10.7%	6,515	7.3%	999,060	6.9%
Professional, Scientific, Management, and Administrative	1,670	9.1%	6,615	7.5%	1,677,660	11.6%
Educational, Health and Social Services	5,054	27.5%	21,435	24.2%	2,658,550	18.3%
Arts, Entertainment, Recreation, Accommodation, Food Services	939	5.1%	6,815	7.7%	1,166,280	8.0%
Other Services (Except Public Administration)	1,035	5.6%	4,465	5.0%	743,930	5.1%
Public Administration	3,467	18.9%	4,975	5.6%	655,985	4.5%
Armed Forces	0	0.0%	45	0.1%	142,615	1.0%
<b>Total (b)</b>	<b>18,345</b>	<b>100%</b>	<b>88,645</b>	<b>100%</b>	<b>14,506,500</b>	<b>100%</b>

## Notes:

- (a) Industry employment figures report the number of jobs in each geographic area, not the number of employed residents.  
(b) Figures in columns may not sum to equal totals presented in Table 3 due to rounding.

Sources: 2000 Census Transportation Planning Package, Part 2, 2009; BAE, 2009.

**Table 9: San Joaquin County (Stockton MSA) Employment Trends**

Industry Sectors	2000		2008		Percent Change 2000-2008
	Employed Workers	Percent of Total	Employed Workers	Percent of Total	
Farm	16,700	8.2%	14,900	6.7%	-10.8%
Mining and Logging	200	0.1%	200	0.1%	0.0%
Construction	11,600	5.7%	11,400	5.2%	-1.7%
Manufacturing	24,700	12.2%	21,400	9.7%	-13.4%
Wholesale Trade	6,400	3.2%	10,500	4.8%	64.1%
Retail Trade	23,600	11.6%	25,600	11.6%	8.5%
Transportation, Warehousing, and Utilities	11,700	5.8%	14,300	6.5%	22.2%
Information	3,000	1.5%	2,300	1.0%	-23.3%
Financial Activities	8,500	4.2%	9,300	4.2%	9.4%
Professional and Business Services	16,800	8.3%	17,400	7.9%	3.6%
Education and Health Services	22,000	10.9%	28,500	12.9%	29.5%
Leisure and Hospitality	14,400	7.1%	17,500	7.9%	21.5%
Other Services	5,900	2.9%	7,600	3.4%	28.8%
Government	37,000	18.3%	40,300	18.2%	8.9%
<b>Total Employment</b>	<b>202,600</b>	<b>100%</b>	<b>221,000</b>	<b>100%</b>	<b>9.1%</b>

Sources: California Employment Development Department, 2009; BAE, 2009.



**Table 10: City of Stockton Workers by Place of Residence, 2000**

	<u>Number of workers</u>	<u>Percent</u>
<b>Workers Employed in City of Stockton (a)</b>	<b>88,352</b>	<b>100.0%</b>
<i>Workers Commuting</i>		
<i>into City of Stockton</i>	36,017	40.8%
<b>Detailed Place of Residence for Workers Commuting Into City of Stockton (b)</b>		
	<u>Number of workers</u>	<u>Percent</u>
<b>Live in San Joaquin County</b>	<b>77,665</b>	<b>87.9%</b>
<i>Stockton</i>	52,335	59.2%
<i>Lodi</i>	4,910	5.6%
<i>Manteca</i>	2,620	3.0%
<i>Country Club</i>	2,100	2.4%
<i>Remainder of County</i>	15,700	17.8%
<b>Live in Stanislaus County</b>	<b>3,885</b>	<b>4.4%</b>
<i>Modesto</i>	1,995	2.3%
<i>Remainder of County</i>	1,890	2.1%
<b>Live in Sacramento County</b>	<b>3,039</b>	<b>3.4%</b>
<b>Live Elsewhere in California</b>	<b>3,763</b>	<b>4.3%</b>

## Notes:

- (a) Tables exclude a small number of workers who commute in from out of state.  
(b) All places reporting 1,800 or more workers commuting into Stockton are shown.

Sources: 2000 Census Transportation Planning Package, 2009; BAE, 2009.

**Table 11: City of Stockton Residents by Place of Work**

	<u>Number</u>	<u>Percent</u>
<b>Employed Stockton Residents (a)</b>	<b>86,519</b>	<b>98%</b>
<i>Workers Commuting out of Stockton</i>	34,184	39.5%
<b>Detailed Place of Work for Workers Commuting Out of the City of Stockton (b)</b>		
	<u>Number</u>	<u>Percent</u>
<b>Work in San Joaquin County</b>	<b>74,525</b>	<b>86.1%</b>
<i>Stockton</i>	52,335	60.5%
<i>Lodi</i>	3,760	4.3%
<i>Remainder of County</i>	18,430	21.3%
<b>Work in Alameda County</b>	<b>3,484</b>	<b>4.0%</b>
<b>Work in Sacramento County</b>	<b>2,377</b>	<b>2.7%</b>
<b>Work in Santa Clara County</b>	<b>1,789</b>	<b>2.1%</b>
<b>Work Elsewhere in California</b>	<b>4,344</b>	<b>5.0%</b>

## Notes:

(a) Tables exclude a small number of workers who commute in from out of state.

(b) All places reporting 1,800 or more workers commuting out of Stockton are shown.

Sources: 2000 Census Transportation Planning Package, 2009; BAE, 2009.

## 2.3 Central Stockton Real Estate Market Overview

### 2.3.1 Retail

Table 12 presents examples of retail space currently available for lease within Central Stockton. In the three buildings identified during BAE's site visit the Hotel Stockton, the Ruhl Building, and the Cal-Weber Building, there is a total of about 15,400 square feet of ground floor retail space available for rent at between \$1.25 and \$2.00 per square foot. The Hotel Stockton, which has the highest asking lease rate at \$2.00 per square foot, has been on the market for two years, and the actual lease rate will probably end up being closer to \$1.50 per square foot (Source: Personal Communication. Lisa Hodgson, Senior Vice President, Colliers International. November 11, 2009). Two of the properties, the Hotel Stockton and the Ruhl building, advertise modified gross leases where the tenant pays a percentage of the increase in operation cost after the base year, and the Cal-Weber Building has a modified net lease where the tenant and the owner share maintenance and operational costs.

The retail market conditions in the city of Stockton, and specifically in Central Stockton, are not strong. Colliers International reported in a Spring 2009 paper on retail market highlights that a "number of markets now have retail vacancy above the 12 percent mark. California's Central Valley (Bakersfield, Fresno, Modesto, and Stockton), Phoenix, Reno, Sacramento, and Las Vegas are among the former boom markets where the reversals have been sharpest" (Source: "Highlight, Retail" Colliers International, North America. Spring, 2009). The report goes on to state that the going rent for power centers in Stockton is between \$11.00 and \$24.00 per square foot per year [\$0.92 to \$2.00 per month], which is significantly below the U.S. average for power centers of \$14.13 to \$31.02 (Source: Ibid, page 5). Lisa Hodgson, Senior Vice President for Colliers International, reports that the retail vacancy rate in Stockton is around 15 to 20 percent, where historically it has been between 10 and 12 percent (Source: Personal Communication. Lisa Hodgson, Senior Vice President, Colliers International. November 11, 2009).

The strongest retail market in Stockton continues to be in north Stockton along Pacific Avenue with its national retailers, while the downtown area has a weaker retail market (Source: Ibid). In fact, the number of retailers downtown is very limited, with the majority of downtown retailers being in the Civic Center development, and the remainder of downtown consisting of salons, boutique dress shops, a uniform shop, an art gallery, some restaurants, and phone stores (Source: Personal Communication. Peggy Massey, Agent, Cort Companies. December 10, 2009). The existing retailers mainly cater to the office population, with the exception being the retailers near the theater. Improvements suggested by retail real estate brokers to increase the demand for additional retail space in Central Stockton include the need for additional infill development, broadening the hours of activity downtown beyond the typical office hours, residential development, and improved facades (Source: Personal Communication. Lisa Hodgson, Senior Vice President, Colliers International. November 11, 2009, and Personal Communication. Peggy Massey, Agent, Cort Companies. December 10, 2009). It is worth noting that Colliers International acted as the broker for the available retail space in the downtown transit station at 421 E. Weber Avenue when the space initially became available. Colliers, however, did not have the success in attracting national retailers like those that Colliers brought in to occupy retail space near the Civic Center. National retailers did not view the demographics of the transit station patrons favorably, and the Downtown Transit Center was seen as two blocks too far from the core downtown area near the Civic Center and waterfront (Source: Personal Communication. Lisa Hodgson, Senior Vice President, Colliers International. November 11, 2009).

## 2.3.2 Office

Table 12 also presents examples of office buildings for lease and for sale in Central Stockton. The going lease rate for office space is between about \$0.95 and \$1.35 per square foot. The lease terms at the Waterfront Warehouse are NN, meaning the owner is responsible for the structural maintenance of the building and the tenant pays other maintenance expenses in addition to their monthly rent. In addition, to make the Waterfront Warehouse more attractive to prospective tenants, new tenants are no longer responsible for Common Area Maintenance Charges (CAMs) like previous tenants. The Cort Building lease is a modified net arrangement, with the tenant and the owner sharing maintenance and operational costs. Two existing office buildings that are for sale in Central Stockton are offered at asking prices between \$90 and \$145 per square foot. The 5,000 square foot Sperry Building is completely vacant, and has been for the last year, while a 7,800 square foot building on North American Street has about 2,800 square feet of office space available.

Throughout the City of Stockton, there are no new office tenants moving in, but rather the majority of new deals involve existing office users shuffling and trying to find a better deal (Source: Personal Communication. Nancy Ann Queriolo, Associate, First Commercial Real estate. December 1, 2009). As stated by Colliers International in their 2009 Real Estate Review report, "Transactions were curtailed or abandoned altogether. As the year wore on, it became more difficult to imply any 'sense of urgency.' Many firms opted to downsize, and sublease opportunities grew significantly for the first time in many years" (Source: Real Estate Review. Colliers International. 2009). The same report goes on to estimate that as of 2008, there was a total of 2.78 million square feet of office space in Downtown Stockton, with Class A rents of about \$20.60 per square foot per year (about \$1.72 per square foot monthly), and a vacancy rate of about 18.6 percent. Furthermore, a Stockton office real estate broker estimated that the current vacancy rate in Central Stockton is upwards of 15 percent (Source: Personal Communication. Real Estate Broker in Stockton. November 12, 2009). One of the factors contributing to the high vacancy rate in Central Stockton is the new policy in San Joaquin County which dictates that county uses be consolidated into county-owned office buildings instead of in space leased from private owners (Source: Personal Communication. Nancy Ann Queriolo, Associate, First Commercial Real estate. December 1, 2009). In order to increase the occupancy rate in Central Stockton, suggestions include improvements in the overall economy and increased public safety in conjunction with creating a perception that the downtown area is safe (Source: Ibid).

## 2.3.3 Residential

Tables 14 through 16 provide data on the single-family homes sales and rental rates in the City of Stockton.

### *Newly Constructed Single Family*

Table 14 shows initial sales or resales over the last year (November 15, 2008 to November 15, 2009) of single-family homes in Stockton that were built between 2007 and 2009. Of the 26 sales for which complete data were available, the median price was about \$173,000, and the average price was \$241,000.

Given the average square feet of living space, which amounted to approximately 2,200 square feet, the average price per square foot was about \$191 for new homes over the last year. Only five of the homes sold for more than \$300,000.

Over the last two years, Stockton has continually had one of the nation's highest foreclosure rates, and the trend continued as Stockton registered the second highest foreclosure rate in the nation in August of 2009 when "one in every 74 housing units received a foreclosure filing" (Source: "Foreclosure Remain at Near Record Pace" Central Valley Business Times, September 10, 2009). These continually high foreclosure rates have increased the supply of for-sale housing available in Stockton and kept prices low.

### *Multifamily*

The data in Table 16 are from the Realfacts database, which includes only "investment grade" complexes of 100 units or more (Source: Realfacts. <http://www.realfacts.com/aboutus.html>. Accessed on January 16, 2008). These types of complexes contain 6,333 units in Stockton, and exist within area codes 95207, 95219, 95210, 95209, and 95204. The average rental rate for all apartment sizes decreased slightly from 2008 to 2009. In 2008, the average rent across all unit types was \$828, but the rate fell to \$808 by 2009. As of 2009, the average rate for a studio apartment was \$615, \$710 for a one-bedroom/one-bath, \$977 for a two-bedroom/two-bath, and \$1,050 for a three bedroom two bath. The occupancy rate stood around 95 percent from 2006 through 2008, but in 2009 dropped to about 93 percent. Realfacts did not add any new apartment complexes of 100 units or more to its Stockton database between 2004 and 2009. Table 17 presents apartment complexes in the Central Stockton area that currently offer apartments for rent. Each of the complexes contains less than 20 units, and the available units consist mainly of one-bedroom units. The average monthly rate for one-bedroom units is currently about \$478, which is significantly below the average rental price of \$710 seen in large apartment complexes in Stockton.

### *New Residential Development in Downtown Stockton*

New single-family home construction in Central Stockton is a market that has not been tested recently. Efforts to build new market-rate housing, including townhouses/single-family units, apartments, and mixed-use projects, have not yielded any units. The recently completed draft of the Stockton Waterfront and Fremont Park Neighborhood Master Plan outlines how the Stockton Redevelopment Department would like to see residential development occur downtown. The emphasis here is on prioritizing downtown sites for future development, and in the next five to ten years, the plan calls for new development, including residential, concentrated on the north and south shores of the waterfront. Then during Phase II (10-15 years) and Phase III (15-25 years) further development should occur surrounding Fremont Park and MLK Plaza. There are no plans for the redevelopment agency to work to develop housing in the areas near Cabral Station. The closest residential development proposed for this area over the next 25 years is about 0.7 miles northwest of Cabral Station near Fremont Park. In talking with Kitty Walker, City of Stockton Redevelopment Program Manager, it is clear that the Redevelopment Department does not currently have plans to assist with residential development as far east as the ACE Train Station (Source: Personal Communication. Kitty Walker, Redevelopment Program Manager. December 2, 2009).

**Table 12: Selected Currently Leasing Central Stockton Commercial Real Estate (November 2009)**

Location	Total Square Feet	Available Square Feet	Asking Lease Rate price/sq ft	Terms of Lease	Length of Vacancy	Prior Tenants	Comments
<b>Available Retail Space</b>							
Hotel Stockton	26,000	5,000	\$2.00	Modified Gross	2 years	No prior tenant since renovation	Could also be office space
Ruhl Building	30,000	4,432	\$1.25	Modified Gross	Unknown	Unknown	Ground floor retail
Cal-Weber Building	40,000	6,000 (retail or restaurant)	\$1.25	Modified Net	Unknown	Unknown	Ground floor retail
<b>Available Office Space</b>							
Waterfront Warehouse	60,000	5,000 currently additional 10,000 available in June 2010	\$1.35	NN	2 months	San Joaquin County	Tenant no longer has to pay CAM
Cort Building, 343 E. Main Street	75,000	8,660	\$0.95	Modified Gross	Unknown	Unknown	National Historic Landmark
Sperry Building 146 W. Weber Ave.	5,000	5,000	n.a.	n.a.	1 year	Unknown	Available for sale, asking price \$725,000; approx. \$145 per sq. ft.
33 N. American Street	7,800	2,800 (office)	n.a.	n.a.	Unknown	Unknown	Available for sale, asking price \$700,000; approx. \$90 per sq. ft.

Sources: Respective owners, property managers, brokers, 2009; Loopnet, 2009; BAE, 2009.

\*Table 13 located on following page

**Table 14: Single-Family Home Sales, New Construction, City Stockton (a)**

SFR Sales Distribution (b)	City of Stockton	
	Number	Percent
Under \$200,000	15	57.7%
\$200,000-\$299,999	6	23.1%
\$300,000-\$399,999	2	7.7%
\$400,000-\$499,999	1	3.8%
Greater than \$500,000	2	7.7%
<b>Total</b>	<b>26</b>	<b>100%</b>
<b>Median Price</b>	\$173,000	
<b>Average Price</b>	\$241,048	
<b>Average Lot Size</b>	0.22 Acres	
<b>Average SF of living space</b>	2,201 Square Feet	
<b>Average Price/SF</b>	\$109.53	

Notes:

- (a) Home sales data were collected for homes built after January 1st, 2007. Includes both first time sales and resales.
- (b) Homes sold between November, 15 2008 to November 15, 2009.

Sources: Dataquick.com, 2009; BAE, 2009.

**Table 13: Commercial Real Estate Sales (a)**

Location	APN	Type (b)	Lot size (Acres)	Sales Price	Building Square Feet	Price Per Square Foot
<b>Central Stockton (c)</b>						
Grant St	139-290-14	Parking Lot, Parking Structure	0.11	\$35,000	unknown	n.a.
Lindsay St	139-240-03	Office Building	0.11	\$52,000	unknown	n.a.
Oak St	139-224-01	Office Building	0.05	\$27,500	unknown	n.a.
Fremont St	151-080-42	Vacant Industrial	0.58	\$45,000	unknown	n.a.
Main St	149-140-12	Stores, Retail Outlet	0.52	\$2,000,000	unknown	n.a.
Weber Ave	149-190-04	Auto Sales, Services	0.11	\$9,000	unknown	n.a.
Aurora St	149-210-03	Store/Office Combo	0.51	\$408,000	unknown	n.a.
Hunter St	149-030-04	Office Building	0.08	\$145,000	unknown	n.a.
<b>City of Stockton</b>						
Central Ave	235-163-01	Office Building	0.07	\$150,100	unknown	n.a.
Main St	155-410-09	Shopping Center	0.18	\$123,308	unknown	n.a.
East Ave	117-221-02	Parking Lot, Parking Structure	0.04	\$400,000	unknown	n.a.
Sanguinetti Ln	119-061-24	Office Building	0.22	\$300,000	unknown	n.a.
Wilson Way	119-061-25	Commercial Miscellaneous	0.21	\$300,000	unknown	n.a.
Willow St	141-270-24	Industrial Miscellaneous	0.25	\$50,000	unknown	n.a.
Swain Rd	094-050-08	Vacant Commercial	1.57	\$224,442	unknown	n.a.
State Route 99 E Fron Road I	179-172-34	Restaurant, Bar, Food Service	1.49	\$351,000	unknown	n.a.
Shaw Rd	143-270-53	Warehouse, Storage	2.84	\$1,215,054	unknown	n.a.
Pershing Ave	135-120-13	Office Building	0.44	\$300,000	unknown	n.a.
Coronado Ave	115-310-03	Industrial Miscellaneous	0.69	\$70,000	unknown	n.a.
Central Ct	113-354-21	Stores, Retail Outlet	0.12	\$525,500	unknown	n.a.
Lance Dr	132-080-23	Warehouse, Storage	0.92	\$604,593	unknown	n.a.
Wilson Way	119-061-26	Commercial Miscellaneous	0.17	\$300,000	unknown	n.a.
Waterloo Rd	119-140-41	Restaurant, Bar, Food Service	0.11	\$220,000	unknown	n.a.
Wilson Way	117-210-06	Restaurant, Bar, Food Service	0.21	\$400,000	unknown	n.a.
Wilson Way	117-221-03	Stores, Retail Outlet	0.17	\$400,000	unknown	n.a.
Harding Way	117-310-39	Stores, Retail Outlet	0.22	\$80,000	unknown	n.a.
Filbert St	141-270-25	Industrial Miscellaneous	0.17	\$50,000	unknown	n.a.
Wilson Way	151-044-05	Store/Office Combo	0.16	\$136,000	2,657	\$51
Miner Ave	153-030-05	Auto Sales, Services	0.09	\$40,000	unknown	n.a.
Weber Ave	151-203-02	Light Industrial	0.17	\$350,000	unknown	n.a.
Union St	151-120-03	Warehouse, Storage	0.68	\$318,988	unknown	n.a.
Mariposa Rd	173-050-42	Store/Office Combo	0.49	\$157,134	unknown	n.a.
Charter Way	165-030-03	Stores, Retail Outlet	0.68	\$336,500	unknown	n.a.
2nd St.	163-230-22	Office Building	2.29	\$800,000	unknown	n.a.
El Dorado St	165-074-26	Store/Office Combo	0.13	\$92,500	unknown	n.a.
El Dorado St	165-153-10	Commercial Miscellaneous	0.16	\$41,000	1,094	\$37
Ralph Ave	177-153-55	Food Store, Market	0.16	\$121,516	unknown	n.a.
Prado Way	081-040-05	Commercial Miscellaneous	0.15	\$64,500	1,555	\$41
March Ln	112-220-16	Office Building	1.04	\$748,454	unknown	n.a.
Bianchi Rd	104-180-18	Shopping Center	0.46	\$212,500	unknown	n.a.
Amherst Dr	082-240-29	Commercial Miscellaneous	0.19	\$135,000	2,747	\$49
Dunbarton Way	079-262-03	Commercial Miscellaneous	0.15	\$100,000	unknown	n.a.
Tam O Shanter Dr	094-050-11	Warehouse, Storage	0.90	\$140,000	unknown	n.a.
Telstar Pl	130-020-11	Auto Sales, Services	4.44	\$1,569,233	unknown	n.a.
Cherokee Rd	087-100-33	Office Building	2.24	\$1,600,000	unknown	n.a.
Arch Rd	179-260-14	Light Industrial	1.62	\$650,000	unknown	n.a.
Frontier Way	179-260-43	Light Industrial	1.71	\$222,812	unknown	n.a.
State Route 99 E Fron Road I	085-150-10	Commercial Miscellaneous	0.40	\$57,000	unknown	n.a.

**Notes:**

(a) Commercial sales between May 1, 2009 and November 19, 2009.

(b) The term vacant refers to vacant land, and the descriptive term such as commercial or industrial refers to the zoning for the vacant land.

(c) Defined as Zip Code 95202, which is slightly smaller than the block groups used to define Central Stockton.

Sources: Dataquick.com, 2009; BAE, 2009.

**Table 15: City of Stockton Rental Housing Market, 3Q 2009****Current Market Data (a):**

<u>Unit Type</u>	<u>Number</u>	<u>Percent of Mix</u>	<u>Avg. Sq. Ft.</u>	<u>Avg. Rent</u>	<u>Avg. Rent/Sq. Ft.</u>
Studio	185	2.9%	454	\$615	\$1.35
1 BR/1 BA	2,708	42.8%	628	\$706	\$1.12
1 BR/1.5 BA	20	0.3%	910	\$695	\$0.76
1 BR Townhouse	61	1.0%	600	\$620	\$1.03
2 BR/1 BA	1,660	26.2%	835	\$838	\$1.00
2 BR/1.5 BA	171	2.7%	924	\$839	\$0.91
2 BR/2 BA	1,044	16.5%	1,042	\$977	\$0.94
2 BR Townhouse	219	3.5%	1,020	\$888	\$0.87
3 BR/1 BA	2	0.0%	1,300	\$1,018	\$0.78
3 BR/1.5 BA	40	0.6%	1,062	\$925	\$0.87
3 BR/2 BA	223	3.5%	1,236	\$1,044	\$0.84
<b>Totals</b>	<b>6,333</b>	<b>100%</b>	<b>792</b>	<b>\$805</b>	<b>\$1.02</b>

**Average Rent History:**

<u>Unit Type</u>	<u>2005</u>	<u>2008</u>	<u>2009</u>	<u>2005-2009 Change</u>	<u>2008-2009 Change</u>
Studio	\$591	\$630	\$615	4.1%	-2.4%
1 BR/1 BA	\$710	\$728	\$710	0.0%	-2.5%
2 BR/1 BA	\$830	\$862	\$842	1.4%	-2.3%
2 BR/2 BA	\$970	\$1,011	\$977	0.7%	-3.4%
2 BR Townhouse	\$913	\$883	\$888	-2.7%	0.6%
3 BR/2 BA	\$998	\$1,044	\$1,050	5.2%	0.6%
Average, All Units	\$803	\$828	\$808	3.1%	-2.4%

**Occupancy Rate**

<u>Year</u>	<u>Average Occupancy</u>
2005	94.3%
2006	95.4%
2007	95.0%
2008	95.2%
2009	93.3%

**Net Absorption**

<u>Year</u>	<u>Units Built (c)</u>	<u>Total Units</u>	<u>Occupied Units</u>	<u>Units Absorbed</u>
2004	0	6,333	5,870	-76
2005	0	6,333	5,972	102
2006	0	6,333	6,041	69
2007	0	6,333	6,016	-25
2008	0	6,333	6,029	13

**Note:**

- (a) Market Area defined as the following zip codes: 95207, 95219, 95210, 95209, and 95204.  
 (b) Represents only those apartment complexes with 100 units or more.  
 (c) According to the Real Facts database, which may not capture all apartment activity.

Sources: Real Facts, Inc., 2009; BAE, 2009.



## 2.4 Market Opportunities

This section explores future development opportunities within Central Stockton that may be leveraged in conjunction with mixed-use development near the Cabral Station.

### 2.4.1 Growth Projections

#### *Housing Unit Projections*

Data from Fehr & Peers at the Traffic Analysis Zone (TAZ) level presented in Table 17 show that between 2003 and 2035 in Central Stockton a total of around 830 additional housing units are anticipated (an increase of 17 percent). The residential units would be comprised mostly of multifamily units (about 810 of the 830 total units). Meanwhile, the City of Stockton as a whole expects to add about 102,000 units (a 103 percent increase from 2003 to 2035), including 83,000 single-family units. The expectation of these projections is that limited residential growth will occur in Central Stockton; however, a settlement agreement between the City of Stockton, the Attorney General and the Sierra Club tied to the greenhouse gas reduction targets of AB 32 may change this direction. The settlement stipulates that the City of Stockton must set a goal of producing 18,400 housing units within the City limits, including 4,400 units within the Greater Downtown Area, generally bordered by Harding Way, Charter Way (MLK), Pershing Avenue, and Wilson Way, through 2035. As a result of this mandate, the City of Stockton will likely place increased emphasis on policies and public investment that will encourage development of new housing in the Central Stockton area. This may help to cause the actual housing production in Central Stockton to exceed the projections.

#### *Commercial Land Use Projections*

The data show significant growth in the amount of office, retail, and wholesale buildings in Central Stockton. The projections estimate that the Central Stockton building inventory could increase by 4.5 million square feet of office space, 5.3 million square feet of retail space, and 619,000 square feet of wholesale space between 2003 and 2035. These figures would represent the increase in building space, after accounting for the net effect of any redevelopment of existing buildings that may occur. This represents an increase of over 200 percent for office, retail, and wholesale building space. Estimates are provided in Table 17 for these land uses for the interim years 2015 and 2025, assuming a constant rate of growth between 2003 and 2035.

Overall, the projections estimate approximately 12.1 million square feet of additional office space, 29.0 million square feet of additional retail, and 95.2 million square feet of additional wholesale in the city of Stockton through 2035. In each sector, the increase is more than 100 percent over the existing building stock. Estimates are also provided for the interim years 2015 and 2025, assuming a constant rate of growth between 2003 and 2035.

#### *EDD Job Growth Projections*

Detailed job growth projections are available for San Joaquin County, and shown in Table 18. San Joaquin County comprises the Stockton Metropolitan Statistical Area. In San

Joaquin County, the Employment Development Department (EDD) expects the number of jobs to increase by about 14 percent, from 209,100 in 2006 to 238,800 in 2016. EDD projects no job loss in any of the industry sectors, and the greatest increase in jobs is shown in the government sector (6,400 additional jobs), followed by the education and health sector (5,200 additional jobs). With anticipated increases in all of the industry categories, the percentage distribution of jobs within the non-farm industry sectors remains relatively stable over time.

Several large projects planned within the downtown area, including a new San Joaquin County Courthouse, and a Veterans Administration Medical Facility, have the potential to add significant new government employment to the area. New workers and visitors brought to downtown locations by these projects will represent a new source of demand for downtown housing, retail, and services. In addition, as transit services at the Cabral Station are diversified, over time, these workers will potentially create demand for transit services that can transport commuters to downtown Stockton.

## 2.4.2 Cabral Station Development Opportunities

This section of the report assesses the potential for mixed-use development near the Cabral Station to capture a portion of the projected increases in housing and commercial development within Stockton over time. As a relatively built out area, the Cabral neighborhood does not have a recent history of development activity that can be extrapolated in order to project the potential amount of development demand that it could capture in the coming years. New, mixed-use development near the Cabral Station will represent a departure from recent trends; however, consideration of long-term growth trends within the city of Stockton, as well as evaluation of anticipated changes in consumer behavior, along with the influence of changes in local, state, and national policies as they affect land use, points toward the potential demand for mixed-use development near the Cabral Station.

### *Potential Demand for New Development*

#### **Retail Demand**

Table 19 shows the existing retail leakage within the City of Stockton. Comparing the data on per capita expenditures for 2007 in the City of Stockton to California indicates that while Stockton compares favorably to the State of California in overall per capita retail sales, there are per capita shortfalls in certain retail categories including apparel stores, eating and drinking places, home furnishings and appliances, and service stations. Combined, these leakages amounted to about \$324 million dollars in 2007. A shortfall indicates that city residents are shopping for their goods outside of the City. All other retail categories had surpluses, implying that stores within the city of Stockton are attracting expenditures from people living outside of the city in those categories in order to support such high retail sales levels. These data indicate the potential opportunity to develop additional retail to serve current unmet demand from residents of the city.

Table 20 presents information on the projected increase in retail demand in Stockton through 2015 and 2025 based upon the SJCOG population projections for Stockton, and the state of California average per capita sales as an indicator of the increase in retail demand due to local population growth. The total amount of additional supportable retail space projected in the city from 2005 to 2015 due to population growth is about

1.7 million additional square feet, increasing to about 3.7 million additional square feet (including the 1.7 million), by 2025. The retail categories with the largest anticipated increases include general merchandise stores, followed by other retail stores (this category contains retailers selling gifts, art goods, and novelties, sporting goods, and flowers, just to name a few), and eating drinking establishments.

Overall, these projections suggest that projected population growth in the City might support somewhat less additional retail development than suggested by the land use projections in Table 17; however, the retail growth potential over the medium and long-term is still substantial, and there should be an opportunity for the Cabral Station area to capture at least a small portion of this increase in demand. The more conservative figures derived from projected population growth are shown in Table 20 for citywide retail growth potential. Table 20 does not show a projected growth figure for new retail development in Central Stockton; however, this will be discussed qualitatively shortly.

#### Office Demand

The increase in office space is estimated using the land use projection data presented in Table 17. In Central Stockton, the projected increase is approximately 1.1 million square feet in 2015, up to 2.5 million square feet in 2025. In the city of Stockton as a whole, the estimate ranges from 3.2 million square feet in 2015, to 6.9 million square feet by 2025.

#### Residential Demand

Table 21 also contains estimates of the projected increase in residential development through 2015 and 2025. In Central Stockton, the projected increase in housing units is minimal, with an estimate of 295 additional units by 2015, and a total increase of 554 units by 2025. Meanwhile, the city of Stockton as a whole has a projected increase of approximately 30,000 additional housing units by 2015, increasing to 62,000 additional residential units by 2035.

## 2.4.3 Planned and Proposed Developments

Table 22 contains information on planned and proposed development in both Central Stockton and the city of Stockton. The only project containing significant new residential development is part of the larger, mixed-use Block Five Redevelopment project, which is only in the pre-application stage. The proposed project would contain 411,000 square feet of mixed-use commercial and residential, 47,000 square feet of strictly residential, 500 parking spaces, and additional green space. As of June 2010, the developer has placed this project on indefinite hold.

Elsewhere in the city of Stockton, the majority of the planned and proposed projects are residential. There are 5,744 gross acres of land with approved tentative maps for residential development. There are 35,563 proposed units, including 33,760 single-family and 1,803 multifamily units. As of December 2009, 4,059 single-family (12 percent of the total planned units), and 801 multifamily (44 percent of the total planned units) building permits had been issued. One project not listed on Table 22 is California Health Care Facility. The California Department of Corrections and Rehabilitation plans to place this approximately 1,700-bed prison hospital east of the Highway 99 intersection with Arch Road. This site is the former home of the Karl Holton Youth Correctional Drug and Alcohol Treatment Facility and is outside of the city of Stockton.

**Table 17: Housing Unit and Commercial Square Footage Projections**

Uses	Base Year 2003	Projections to 2035	Actual Change 2003-2035	Average Annual Change 2003-2035	Estimated 2015	Estimated 2025
<b>Central Stockton</b>						
Residential (Units)						
Single-family	1,288	1,299	11	0.0%	1,292	1,296
Duplex	180	181	1	0.0%	180	181
Triplex	49	51	2	0.1%	50	50
Multifamily	3,213	4,026	813	0.7%	3,497	3,752
Condominiums	0	0	0	n.a.	n.a.	n.a.
RH	2	2	0	0.0%	2	2
Mobile homes	0	0	0	n.a.	n.a.	n.a.
<b>Total Units</b>	<b>4,732</b>	<b>5,559</b>	<b>827</b>	<b>0.5%</b>	<b>5,027</b>	<b>5,286</b>
Commerical Square Footage (1,000 square feet)						
Office	2,062	6,587	4,525	3.7%	3,187	4,582
Retail	1,408	6,634	5,226	5.0%	2,518	4,087
Wholesale	221	840	619	4.3%	365	553
Light Industrial	125	125	0	0.0%	125	125
Heavy Industrial	74	74	0	0.0%	74	74
Hospital	183	183	0	0.0%	183	183
Public	482	482	0	0.0%	482	482
<b>Commercial Total</b>	<b>4,555</b>	<b>14,925</b>	<b>10,370</b>	<b>3.8%</b>	<b>7,108</b>	<b>10,300</b>
<b>City of Stockton</b>						
Residential (Units)						
Single-family	71,732	154,613	82,881	2.4%	95,673	121,623
Duplex	3,470	3,796	326	0.3%	3,589	3,691
Triplex	1,022	2,044	1,022	2.2%	1,325	1,646
Multifamily	17,652	35,304	17,652	2.2%	22,892	28,428
Condominiums	2,369	2,385	16	0.0%	n.a.	n.a.
RH	1,134	1,134	0	0.0%	1,134	1,134
Mobile homes	1,563	1,563	0	0.0%	n.a.	n.a.
<b>Total Units</b>	<b>98,942</b>	<b>200,839</b>	<b>101,897</b>	<b>2.2%</b>	<b>129,027</b>	<b>160,977</b>
Commerical Square Footage (1,000 square feet)						
Office	6,777	18,910	12,133	3.3%	9,958	13,722
Retail	15,893	44,885	28,992	3.3%	23,458	32,449
Wholesale	4,369	99,532	95,163	10.3%	14,108	37,473
Light Industrial	14,419	14,419	0	0.0%	14,419	14,419
Heavy Industrial	6,518	13,036	6,518	2.2%	8,453	10,497
Hospital	2,594	2,594	0	0.0%	2,594	2,594
Public	3,503	3,503	0	0.0%	3,503	3,503
<b>Commercial Total</b>	<b>54,073</b>	<b>196,879</b>	<b>142,806</b>	<b>4.1%</b>	<b>87,788</b>	<b>131,468</b>

Sources: Fehr and Peers, 2009; BAE, 2009.

**Table 18: Stockton MSA Employment Projections by Industry**

Industry Sectors <b>Stockton MSA (a)</b>	2006		2016		Percent Change <b>2006-2016</b>
	Employed Workers	Percent of Total	Employed Workers	Percent of Total	
Natural Resources and Mining	200	0.1%	200	0.1%	0.0%
Construction	15,900	7.6%	16,300	6.8%	2.5%
Manufacturing	21,700	10.4%	22,700	9.5%	4.6%
Wholesale Trade	9,800	4.7%	11,800	4.9%	20.4%
Retail Trade	27,200	13.0%	31,100	13.0%	14.3%
Transportation, Warehousing, and Utilities	13,500	6.5%	15,500	6.5%	14.8%
Information	2,500	1.2%	3,000	1.3%	20.0%
Financial Activities	9,900	4.7%	10,800	4.5%	9.1%
Professional and Business Services	18,500	8.8%	22,100	9.3%	19.5%
Education and Health Services	26,100	12.5%	31,300	13.1%	19.9%
Leisure and Hospitality	17,300	8.3%	20,300	8.5%	17.3%
Other Services	6,800	3.3%	7,700	3.2%	13.2%
Government	39,600	18.9%	46,000	19.3%	16.2%
<b>Total Non-farm (b) (c)</b>	<b>209,100</b>	<b>100%</b>	<b>238,800</b>	<b>100%</b>	<b>14.2%</b>

## Notes:

- (a) The Stockton MSA consists of San Joaquin County.  
(b) Data from the Employment Development Department do not include estimates of agricultural employment.  
(c) Figures in columns may not sum to equal totals due to rounding.

Sources: California Employment Development Department, 2009; BAE, 2009.

**Table 19: Existing Retail Leakage Analysis, City of Stockton, 2007**

Retail Category	City of Stockton	California	Per Capita Shortfall or Surplus	City of Stockton as a	City of Stockton Shortfall or Surplus
	Estimated Per Capita Expenditures 2007 (a)	Estimated Per Capita Expenditures 2007 (b)		Percentage of the California Estimated Per Capita Expenditures	
Apparel stores	\$416.40	\$553.02	(\$136.62)	75%	(\$39,235,829)
General merchandise stores	\$1,852.52	\$1,588.26	\$264.26	117%	\$75,893,542
Food stores	\$704.86	\$595.59	\$109.27	118%	\$31,381,484
Eating and drinking places	\$1,009.61	\$1,369.80	(\$360.18)	74%	(\$103,440,517)
Home furnishings and appliances	\$262.97	\$443.38	(\$180.41)	59%	(\$51,811,676)
Building materials	\$1,066.64	\$865.93	\$200.71	123%	\$57,642,475
Motor vehicles and parts	\$1,934.15	\$1,876.83	\$57.33	103%	\$16,463,124
Service stations	\$796.90	\$1,248.52	(\$451.62)	64%	(\$129,699,360)
Other retail stores	\$1,923.55	\$1,721.18	\$202.37	112%	\$58,119,176
<b>Total for all Categories with Leakage</b>			<b>(\$1,128.83)</b>		<b>(\$324,187,382)</b>

Notes:

- (a) Calculated using 2007 taxable sales data and population data for the City of Stockton
- (b) Based on 2007 estimated consumer expenditures from Statewide per capita taxable sales transactions

Sources: State Board of Equalization, 2007; California Department of Finance, 2007; BAE, 2009.

**Table 20: Projected Increase in Stockton Retail Demand to 2015 and 2025 (a)**

Retail Category	Estimated Per Capita Expenditures 2007 (b)	Additional Retail Demand 2015 (Dollars) (c)	Estimated Sales Per Sq. Ft.	Additional Retail Space Demand 2015 (Square Feet)
Apparel stores	\$553	\$34,844,809	\$283	123,187
General merchandise stores	\$1,588	\$100,073,011	\$270	370,060
Food stores	\$596	\$37,526,632	\$420	89,426
Eating and drinking places	\$1,370	\$86,308,144	\$418	206,542
Home furnishings and appliances	\$443	\$27,936,228	\$361	77,333
Building materials	\$866	\$54,560,288	\$425	128,245
Automotive sales and parts	\$159	\$9,990,260	\$189	52,784
Other retail stores	\$1,721	\$108,448,079	\$372	291,511
<b>Total Projected Demand Increase</b>		<b>\$459,687,450</b>		<b>1,339,089</b>

w/ 14% non-retail adjustment (square feet) (d)

1,557,080

w/ 10% vacancy adjustment (square feet) (e)

1,730,089

Retail Category	Capita Expenditures 2007 (b)	Additional Retail Demand 2025 (Dollars) (c)	Estimated Sales Per Sq. Ft.	Additional Retail Space Demand 2025 (Square Feet)
Apparel stores	\$553	\$73,953,970	\$283	261,449
General merchandise stores	\$1,588	\$212,393,085	\$270	785,409
Food stores	\$596	\$79,645,821	\$420	189,796
Eating and drinking places	\$1,370	\$183,178,791	\$418	438,361
Home furnishings and appliances	\$443	\$59,291,327	\$361	164,130
Building materials	\$866	\$115,797,734	\$425	272,185
Automotive sales and parts	\$159	\$21,203,140	\$189	112,028
Other retail stores	\$1,721	\$230,168,173	\$372	618,697
<b>Total Projected Demand Increase</b>		<b>\$975,632,041</b>		<b>2,842,057</b>

w/ 14% non-retail adjustment (square feet) (d)

3,304,717

w/ 10% vacancy adjustment (square feet) (e)

3,671,908

Notes:

- (a) Does not include additional retail demand generated by new office workers in Stockton
- (b) Based on 2007 estimated consumer expenditures from statewide per capita taxable sales transactions.
- (c) Based on SJCOG projected population increases in Stockton through 2015 or 2025.
- (d) Adjustment to account for an additional 14 percent for non-retail outlets (business and personal services).
- (e) Adjustment to account for a ten percent vacancy allowance.

Sources: SJCOG, 2009; State Board of Equalization, 2007; Urban Land Institute, Dollars and Centers of Shopping Centers, 2007; HDL Companies, 2007; BAE, 2009.

**Table 21: Projected Land Use Growth, 2015 and 2025**

	<b>Land Use Growth 2015</b>	<b>Land Use Growth 2025</b>
<b>Central Stockton</b>		
Retail (Square Feet)	see text	see text
Office (Square Feet) (a)	1,125,413	2,520,083
Housing (Units) (a)	295	554
<b>City of Stockton</b>		
Retail (Square Feet) (b)	1,730,089	3,671,908
Office (Square Feet) (a)	3,180,671	6,945,228
Housing (Units) (a)	30,085	62,035

**Notes:**

(a) See Table 17 for information on land use projections.

(b) See Table 20 for information on projected increase in retail space.

Sources: BAE, 2009.

**Table 22: Approved Planned and Proposed Residential, Office, and Retail Development, 2009**

Type/Location	Description	Number of units/ square footage	Status
<b>Central Stockton</b>			
<b>MIXED-USE</b>			
Intersection of Weber, Main, California and Sutter	"Block 5" Redevelopment, includes 411,000 sq. ft of mixed-use commercial and residential and 47,000 sq. ft of residential, 500 parking spaces, and green space	411,000 sq. ft. MU 47,000 sq. ft. residential	Pre-application
<b>OTHER</b>			
Miner Ave.	Streetscape	n.a.	Grant received from Caltrans, and in early planning
<b>CIVIC</b>			
55 S. Lincoln Street	15,500 square foot DMV office on 3.9 acres	15,500	Construction complete Summer of 2010, open in early autumn.
Main St. just east of California St.	New charter elementary school and high school	unknown	Proposed, but no application at this time.
Veterans Administration Medical Facility	Medical center serving veterans	unknown	Still considering multiple sites, and there is a possibility that it will be located in the County at the intersection of Mathews Road and I-5.
Hunter Square Plaza along Weber Ave., adjacent to the existing downtown courthouse	San Joaquin County Courthouse	282,763 sq. ft. 30 courtrooms	Expected completion mid 2013
<b>Remainder of the City of Stockton</b>			
<b>RESIDENTIAL</b>			
Rivenwalk	10-acre residential development	102 residential units	60 building permits issued to date.
Moss Garden	50-acre residential development	359 residential units	97 building permits issued to date.
Windstone	8-acre residential development	66 residential units	Zero building permits issued to date.
Little John Creek	151-acre residential development	853 residential units	794 building permits issued to date.
North Stockton Projects	393-acre residential development	2,458 residential units	1,751 building permits issued to date.
Seabreeze I and II	50-acre residential development	249 residential units	167 building permits issued to date.
Montego I and II	82-acre residential development	389 residential units	165 building permits issued to date.

Sources: City of Stockton Planning Department, 2009, BAE, 2009.



## 2.4.4 Market Opportunities for Mixed-Use Development Near Cabral Station

Considering the findings from the economic research and analysis contained in the preceding sections of this report, following are conclusions about the market opportunities to support mixed-use development in the Cabral Station area.

### *General Conclusions*

There is not much planned and proposed development in Central Stockton relative to long-term growth potential of the city of Stockton. The one project, the Block Five redevelopment, that would compete with new mixed-use development at Cabral Station is currently on indefinite hold. In addition, if the project were to be completed, rather than have an adverse competitive effect, it would greatly enhance the neighborhood surrounding Cabral Station and help to increase demand for residential and commercial development near Cabral Station rather than detracting from the project. This leaves considerable opportunity for new development at the Cabral Station to compete for a share of projected citywide growth, without undue competition from other planned and proposed mixed-use developments in the downtown area.

In the short term, if the conventional tenant demand for retail or office space is weak due to current economic conditions, the project could be developed in partnership with local non-profit organizations and/or governmental entities who could occupy the space on an interim basis, until economic conditions improve, or who could remain as long-term tenants. In the meantime, these tenants would help to “activate” the area, particularly during the daytime hours when commuters are not present. Organizations providing cultural activities, education/childcare, or recreational activities can be successful in generating positive energy and activity within a community. Similarly, affordable housing could represent an initial phase of residential development, helping to meet community needs while bringing in additional evening and weekend activity.

Starting with a relatively small project on a relatively small site would begin a process of gradually increasing densities and intensity of development within the neighborhood. Rather than creating a few large projects, this would suggest a more organic process that incrementally revitalizes the neighborhood over an extended period of time, as conditions evolve. Given this type of approach, it will be important for SJRRC and the city of Stockton to work together to ensure that the land use regulations in the area will support this type of development pattern over the long-term, and incompatible development in the short-term will not foreclose valuable TOD opportunities. SJRRC should continue to advocate for the city of Stockton to implement land use regulations and development codes that are consistent with the vision of the Cabral Station Neighborhood Revitalization Plan. Specifically, land use controls should be considered to discourage development of new, low-intensity, non transit-friendly uses in close proximity to the transit station.

Considering the potential scale of a high speed rail facility, the vision of the Cabral Station Neighborhood Revitalization Plan may need to be expanded in this regard. New zoning options should be explored for the Cabral Station area, given that many of the parcels surrounding the mixed-use site currently have an Industrial Limited zoning designation where the primary use is industrial. The Industrial Limited zoning district is applied to areas appropriate for light manufacturing uses that may generate more nuisance impacts than acceptable in commercial zoning districts and whose operations are totally

conducted indoors. It includes ancillary office uses. The Industrial Limited zoning district is consistent with the industrial land use designation of the General Plan. Updated zoning designations would send a clearer message to property owners and the development community about the desired types of development for the area. Furthermore, it would be unfortunate if owners/developers invested money in new, typically low-intensity, industrial-uses in close proximity to the transit station, where higher density development that would better support transit usage should be encouraged on the limited property that is in close proximity to the train station.

### *Residential Development*

Residential development is the most promising TOD land use for the Cabral Station area in the short term as well as the long term, given current conditions and conditions that can be foreseen in the future. In the city of Stockton, both the current supply of residential units and the planned and proposed projects are predominantly single-family detached units. There is an opportunity to create a wider variety of unit types, recognizing that changing demographics over the next 15 to 25 years are likely to spur greater demand for different types of units. There will be increasing proportions of households represented by single people living alone, childless couples, and the elderly, for whom a large single-family detached home will be seen as a liability. As households downsize their private space, they will seek homes in neighborhoods that offer more public amenities, transit connectivity, and diverse shopping, cultural, and recreational opportunities, as well as convenient access to jobs. As with other transitional neighborhoods, the earliest demand for new housing types tends to come from “pioneers” who are typically young singles or couples without children.

The neighborhood surrounding the Cabral Station has the potential to meet these needs over the long term; however, in the short term, residential projects will need to leverage a few key assets that the neighborhood enjoys currently, such as existing amenities like schools, parks, and grocery stores that are located nearby.

The transit access is a key distinguishing characteristic of the Cabral neighborhood, and the jobs/housing imbalance that currently exists in Stockton and is projected to continue means that people living in Stockton must commute for work, and the ACE train is a unique option for an efficient work commute. As of 2000, about four percent of employed Stockton residents commuted to Alameda County, and an additional two percent commuted to Santa Clara County for work. This represents almost 5,273 potential residents/tenants for housing convenient to the Cabral Station. Even capturing just a small percentage of those commuters in housing near the station, such as two percent, would create demand for 100 new TOD residential units near the Cabral Station. As traffic congestion, gas prices, and other factors conspire to make commuting via single-occupancy vehicle less attractive, this should bolster demand for housing near a convenient commute option such as ACE. Furthermore, the relatively high incomes reported by ACE commuters suggest that they could afford market rate housing at a wide range of price points, both for-sale and for-rent. Meanwhile, affordable housing development could tap into demand from lower-income households who have been the predominant inhabitants of downtown Stockton more recently.

In the short term, perceptions of a lack of safety and security in the downtown area should be addressed to mitigate an immediate constraint on potential demand for housing (as well as for use of the Cabral Station by commuters who live elsewhere in the Stockton community). Over the longer term, demand for housing at Cabral Station may be enhanced by developing additional residential amenities within the immediately surrounding neighborhood, including additional restaurants, and convenience shopping and services. As mentioned before, the development of the Block Five Redevelopment project could help in this regard.

### *Retail Development*

There is an existing base of population within Central Stockton (15,100 people) that is large enough to support a range of neighborhood and convenience-oriented shopping, restaurants, and services. For example, a stand-alone community of 15,000 people would be capable of supporting a full range of retailers such as those found within a typical grocery-anchored shopping center, such as a full-service supermarket, a drugstore, a range of casual/quick-serve/fast-food restaurants, cleaners, ice cream/yogurt shops, coffee shops, and the like. In addition, the large employment base in downtown Stockton creates additional daytime retail demand, although these workers tend to be concentrated closer to the Civic Center/Waterfront areas. Nevertheless, given the generally weak and limited retail market in downtown at this time, there should be an opportunity for a well-designed commercial component that is complemented by other attractive uses, such as office and residential, along with a range of public improvements and amenities to capture a modest amount (6,000 to 12,000 square feet) of commercial demand in the short term, through 2015.

In the short term, it will be important that retail at the Cabral Station does not attempt to compete for the limited retail market that is targeted by the Civic Center retail development. Destination uses (e.g., upscale restaurants, more specialized retail in larger spaces) are likely to be attracted to the Civic Center/Waterfront areas. Retail development in the Cabral Station area should initially focus on limited amounts of convenience retail to serve both transit users and nearby residential neighborhoods. With a heavily Latino/Hispanic population, there may be an opportunity to develop ethnic-themed retail. In the longer-term, through 2025, there is potential to fill additional commercial space. The ultimate quantity of new retail space that can be supported in the Cabral neighborhood will depend on a number of factors, including the extent to which “placemaking” efforts are successful in creating a destination that is attractive for shoppers who live outside of Central Stockton to visit.

### *Office Development*

While the larger corporate and institutional, Class A office users will likely want to be in the Civic Center or Waterfront areas where there is greater visibility and proximity to the city's traditional business core, the mixed-use site near Cabral Station is more suited to smaller office users, such as architects, graphic designers, consultants, and others. Live-work units may be one way of melding the demand for small office development with the demand for residential development. These units could be very attractive to ACE commuters, who may have the option to work at home for a portion of the week rather than making the long commute every day. An example of a similar situation is the types of office tenants that are located in Midtown Sacramento versus the types of tenants that are drawn to Downtown Sacramento. Midtown is the lower-density neighborhood that lies just to the east of Sacramento's central business district. Over the last 10 years, this area has attracted a wide range of small infill residential projects, including townhomes and smaller multifamily rentals and condominium projects, along with a diverse range of restaurants and retailers that serve neighborhood residents as well as visitors from elsewhere in Sacramento and the surrounding region. In contrast, the new development in downtown Sacramento has primarily involved high-rise office buildings for large corporate and institutional tenants as well as more business-oriented hotels and restaurants, and relatively little new retail space. Given the size of the city of Stockton, there should be significant opportunity to attract this type of office development within the Cabral neighborhood; however, it will also take time to cultivate this market. Provision of convenience retail and restaurants onsite and nearby will have a substantial positive effect on the attractiveness of the location for small offices, which are as attracted to these types of amenities as residential uses.

In the near term, the function of the Cabral Station as a commuter rail stop with service bringing passengers to the station only in the evening will not attract large office users who want to be near transit as a way for their employees to commute from home. Over time, if the Cabral Station can be developed as a multimodal facility with high-speed rail or other inter-city rail services connecting to locations such as Sacramento and Modesto, the Cabral neighborhood could be well positioned to function as a regional employment hub. Rather than being considered at the "fringe" of downtown, the Cabral Station area could function as a "gateway" to downtown. Under this type of scenario, the Cabral Station area could be well positioned to compete for a substantial portion of Central Stockton's projected 2.5 million square feet of additional office space by 2025.

## 2.5 TOD Lessons Learned

Combined with previous project experience, BAE conducted a range of research in order to identify relevant lessons learned from TOD projects undertaken elsewhere. Key resources utilized for this section include two reports that BAE previously worked on: “Statewide Transit-Oriented Development Study: Factors for Success in California” for the California Department of Transportation, (Source: Business Housing and Transportation Agency, California Department of Transportation “Statewide Transit Oriented Development Study, Factors for Success in California.” September 2002). and a national study entitled “Transit-Oriented Development and Joint Development in the United States: A Literature Review” for the Transportation Research Board of the National Academies (Source: Transportation Research Board of the National Academies. “Transit-Oriented Development and Joint Development in the University State” October 2002). A report titled “Ten Principles for Successful Development around Transit,” by the Urban Land Institute (Source: Dunphy, Robert, Deborah Myerson, and Michael Pawlukiewicz. Ten Principles for Successful Development around Transit. ULI—the Urban Land Institute, 2003). as well as another paper produced by the Center for Transit Oriented Development (CTOD) titled TOD Case Studies: Implementation on Low-Income, Ethnically Diverse Neighborhoods (Source: TOD Case Studies: Implementation in Low-Income, Ethnically Diverse Neighborhoods. Center for Transit Oriented Development, January, 2007). also provided key insights. This section discusses major themes from these studies, augmented with BAE’s own observations from other projects, including the density and types of uses, development strategies, and special programs and financing approaches that are applicable to Cabral Station in Stockton.

### 2.5.1 Key Considerations Regarding Cabral Station Site

Several key factors about the ACE Train and Cabral Station make it a unique TOD site:

- Located in a transitional neighborhood
- Small ridership numbers (2,959 average boardings per day system-wide and 263 average boardings per day at Cabral in 2009). (Source: Ridership by station by day (summary) for 10/26/2009 to 11/1/2009, provided by SJRRC staff. December 16, 2009).
- Currently, the majority of patrons drive to the station (in 2009, 71.2 percent of surveyed passengers boarding at the Cabral Station either drove alone or were dropped off at the station). (Source: Altamont Commuter Express Passenger Survey 2009).
- Trains covering long distances and limited service (the closest destinations are more than 14 miles from Stockton). (Source: Ibid, page 15). Small project site (the site near Cabral Station is less than two acres).

Essentially, the Cabral Station is a small-scale TOD site, on the edge of a downtown area, where the transit service currently is geared to transporting commuters to distant job destinations and therefore has a unique set of opportunities and constraints. The process of developing mixed-use by the Cabral Station is very different from large-site TOD developments where transit lines, such as heavy and light rail, offering frequent service transport people to a wide range of destinations, in different directions. The main function of the ACE train is to take passengers who live in Stockton to their place of work and bring them home in the evening. The last morning train is at 6:40am and the first train returning to Stockton leaves San Jose at 3:35pm and returns to Stockton at 5:45pm, which commits train patrons to at least an 11-hour round trip. Therefore, the ACE station is empty throughout

most of the day, mainly serves those commuting to work, and is located in an area with a limited amount of residential, retail, and office development. Each of these factors makes the situation at the ACE train station very different from other transit stations that are active throughout the day, facilitate errands and trips for leisure as well as work, and are located in mainly residential neighborhoods or in more diverse business districts.

## 2.5.2 Density and Types of Use

Given that one of the main goals of TOD at the Cabral Station is to increase transit ridership, it is important that the TOD contain high-density development within walking distance to the station. Research recommends that the development be within a quarter to a half mile of the transit station, which equates to between 5 and 15 minutes of walking, and that residential development near High Speed Rail be built at a minimum of 20 to 30 dwelling units per acre (Source: Transportation Research Board of the National Academies. "Transit-Oriented Development and Joint Development in the University State" October 2002, page 78 and 80). These are rough estimates, but the data are supported by TOD ordinances in San Diego, California; Portland, Oregon; Washington County, Oregon; and Seattle, Washington (Source: Ibid, pages 78 and 80).

TOD research offers further insight into the appropriate mixes of uses for TOD projects. Some transit agencies take a contextual approach to deciding the appropriate mix of land uses. For example, the Puget Sound Regional Council states that land use "decisions regarding the amount of retail-commercial development should weigh local market conditions and provide an opportunity to conduct some non-work errands" (Source: Transportation Research Board of the National Academies. "Transit-Oriented Development and Joint Development in the University State" October 2002, page 82). The work of Peter Calthorpe, a leading thinker on TOD development, takes a more definitive stance on the mixes of uses and "sets a minimum standard, holding that the core commercial area should occupy a minimum of 10 percent of the total site, with at least 10,000 square feet of retail space adjacent to the transit stop" (Source: Ibid, page 82). In determining the mix of uses at Cabral Station, it is important to weigh market conditions to determine the percentage of commercial space that can be supported, and consider placing the retail space in close proximity to Cabral Station. As the ULI states in one of its *Ten Principles for Successful Development Around Transit*, "make retail development market driven, not transit driven." The ULI paper alludes to some of the early mistakes in TOD that were based on the mistaken assumption that "just because there is transit, if you build retail they will come," and points out that while the presence of transit can strengthen demand for retail, if there is not a viable retail market in the surrounding area, TOD retail will not be successful.

Retail development at the Cabral Station in the short-term must cater to demands of the existing neighborhood. Based on current conditions at the Cabral Station, where limited passenger activity alone will not be adequate to support any amount of retail activity, it will be critical to ensure that any retail development is also visible and accessible to drive-by traffic and foot traffic from the adjacent neighborhoods that is not necessarily associated with transit use. Over the longer term, if Cabral Station can be successfully developed as a multimodal station that attracts greater volumes of passengers throughout the day and evening hours, transit patrons can play a larger role in supporting TOD retail; however, regardless of the increases in passenger activity at the station, continuing to provide station area retail with access and visibility to traffic generated by other nearby land uses will only add to the value of station area TOD sites.

## 2.5.3 Challenges

A review of the literature reveals that, historically, the three biggest challenges facing TOD projects similar to what could be constructed near the Cabral Station are financing, infrastructure improvements, and a lack of development experience. In the past, developers have often found it difficult to secure financing because TOD projects are seen as risky, especially those in marginal neighborhoods, (Source: Ibid, page 72) and TOD mixed-use developments can sometimes be appraised below the developments' actual market value due to confusion on how to value the property and the need to value each use separately per underwriting standards (Source: Business Housing and Transportation Agency, California Department of Transportation "Statewide Transit Oriented Development Study, Factors for Success in California." September 2002, page 121). Secondly, since the new proposed mixed-use development is in a section of Stockton that has traditionally had industrial and low-density residential uses, there may be a concern that the existing infrastructure may not be suitable for higher-density development and hence need upgrading. Numerous other TOD projects in low-density areas of California have found the cost of improving infrastructure to be a significant barrier (Source: Ibid, page 121). Finally, SJRRC, like many transit agencies across the nation, has limited experience in development, and it will be necessary for the agency to use great care in entering into its first agreements with development partners, to ensure that they represent sound business decisions.

## 2.5.4 Learning from Other TODs

The San Joaquin Regional Rail Commission should consider instituting the following programs and approaches based on the positive outcomes seen in other TOD projects throughout California and the rest of the United States:

- Including the TOD project in the context of a long-term plan for neighborhood development and addressing community needs in new TOD
- Acquiring and assembling multiple parcels
- Partnering with the local redevelopment authority and/or housing authority
- Partnering with non-profit organizations to provide affordable housing and other services needed by the community
- Facilitating needed infrastructure improvements

Each of these programs and approaches have been included in a successful TOD project, implemented in a diverse range of neighborhoods throughout the U.S. The lessons learned from such projects can be applied to the TOD near the Cabral Station, as explained below.

### *Develop TOD as Part of a Larger Vision for Revitalization*

Looking beyond the proposed mixed-use site and at the surrounding sites, it is crucial that the TOD project fit into the context of a long-term comprehensive plan (Source: Ibid, page 68). The Urban Land Institute echoes this in number five of its Ten Principles for Successful Development Around Transit, which states, "Make a Place, Not a Project." SJRRC is already addressing this particular point because the "Robert J. Cabral Station Neighborhood: A Plan for Revitalizing East Downtown Stockton" sets the stage for creation of a larger "place" that will help to support successful TOD near the Cabral Station.

One station, in particular the Bronzeville Station along the rapid transit Green Line in Chicago, has successfully included TOD as one component of a larger revitalization plan. The Bronzeville Station is similar to Cabral Station in that the neighborhood surrounding the station is also predominantly low-income. The community planning efforts in the neighborhood led to the creation of the Harold Washington Cultural Center within a quarter mile of the transit station (Source: TOD Case Studies: Implementation in Low-Income, Ethnically Diverse Neighborhoods. Center for Transit Oriented Development, January, 2007). The Cultural Center, completed in 2004, has become a Chicago destination, and is just one component in a larger Bronzeville neighborhood planning effort outlined in the 1994 plan “Restoring Bronzeville” by the Mid-South Planning and Development Commission (Source: TOD Case Studies: Implementation in Low-Income, Ethnically Diverse Neighborhoods. Center for Transit Oriented Development, January 2007).

The Harold Washington Cultural Center shows that “placemaking” is an important consideration in a transitional neighborhood such as the neighborhood surrounding Cabral. It is important to provide attractive public spaces, including programming such as concerts, festivals, farmers markets, or recreational activities that will enliven the area and make it more inviting and interesting for transit users, in addition to addressing broader community needs. Additionally, cultural facilities and community services can be important anchor tenants for TOD in diverse neighborhoods.

### *Acquire and Assemble Multiple Parcels*

Parcel assembly and preparation of the site for development is often cited as one of the most valuable contributions that public agencies can make in facilitating successful TOD. This idea aligns with one of the ULI “Ten Principles for Successful Development Around Transit” in that facilitating development on a number of sites could help establish a far reaching vision for the project (Source: Dunphy, Robert, Deborah Myerson, and Michael Pawlukiewicz. Ten Principles for Successful Development around Transit. ULI—the Urban Land Institute, 2003).

The role of SJRRC could be very hands-on and involve assembling land around the existing station, (Source: Transportation Research Board of the National Academies. “Transit-Oriented Development and Joint Development in the University State.” October 2002., page 17). or SJRRC could take a more indirect approach. In the case of the La Mesa Village Plaza project in San Diego County along the Amaya Trolley station, and the Ryland Mews development in Santa Clara County, near a station for the San Jose Light Rail (see picture on left from the San Jose Department of Housing), the local redevelopment agency required the assembly of multiple parcels (Source: Ibid, page 54). In contrast, Tri-Met in Portland does not develop land; instead, the agency helps to facilitate development within a five-minute walk of the system’s stations by creating “station area development profiles,” which identify sites suitable for development, such as vacant land, underutilized surface parking lots, and land values” (Source, Ibid, page 21); (See picture on right of The Crossings at Gresham Station along the Tri-Met MAX Light Rail line). Both the Ryland Mews and The Crossings are similar to Cabral Station in that the developments are along commuter light-rail lines.





In terms of land acquisition near Cabral Station, SJRRC may first want to try to generate development interest by sharing a vision for the area with developers, and creating profiles of local sites. Then, if development fails to occur through these means, SJRRC could consider acquiring multiple parcels and then selling or leasing the land to developers to diminish the risk for the developer.

### *Partner with the Local Redevelopment Agency and/or Housing Authority*

In the city of Stockton, the Revitalization Department handles both redevelopment and housing development. The proposed mixed-use site is located in the former West End Redevelopment Project Area that has been incorporated into the Waterfront Merged Redevelopment Area, and therefore is eligible for financing options such as Tax Increment Financing that are unique to redevelopment areas. The Waterfront Merged Redevelopment Area Plan, adopted in June 2009, contains policies that promote housing opportunities for “all segments of the community,” but does not include goals for a specified number of units (Source: Amended and Restated Redevelopment Plan for the Waterfront Merger Redevelopment Project Area. Redevelopment Agency of the City of Stockton. June 23, 2009).

One example of cooperation from the local redevelopment agency is in the Tivoli Square project in Columbia Heights, Washington, D.C. For this project, the Development Corporation of Columbia Heights partnered with a private developer on a 55,000 square foot development clustered around an existing D.C. metro station (Source: Development Corporation of Columbia Heights. [http://www.dccch.org/html/hcdd\\_commercial.html](http://www.dccch.org/html/hcdd_commercial.html). Accessed on December 16, 2009). The Development Corporation started utilizing Tax Increment Financing (TIF) to fund public improvements in the area in the early stages of the planning process for Tivoli Square (Source: TOD Case Studies: Implementation in Low-Income, Ethnically Diverse Neighborhoods. Center for Transit Oriented Development, January 2007). The investment appears to be paying off as the development recently received an economic development award from the Washington D.C. Chamber of Commerce (Source: Horning Brothers. <http://www.horningbrothers.com/tivoli.html>. Accessed on December 17, 2009). TIF was one of the keys to getting developers interested in transforming the long-abandoned Tivoli Theater into a mixed-use facility. Future development at Cabral Station should consider the use of Tax Increment Financing, because it can help private developers overcome high infrastructure costs that are often barriers to potential development, and Redevelopment funding may fill in financing gaps if conventional lenders might consider initial mixed-use projects in the Cabral neighborhood too risky.

### *Partner with Non-Profit Organizations or Public Agencies to Provide Affordable Housing and/or Community Services*

TODs can be quality locations for affordable housing, because nearby transit provides tenants access to job opportunities at a reasonable cost. As documented by the report “Bay Area Burden,” there is a very high transportation cost with “low-density, non-transit accessible neighborhoods” that can be mitigated by the close proximity of jobs and public transit (Source: Urban Land Institute, Center for Neighborhood Technology, and Center for Housing Policy. “Bay Area Burden. November 4, 2009).

For example, when Sound Transit in the Puget Sound area was undertaking the construction of the LINK train, the organization collaborated with a local non-profit to assist in the rehabilitation of homes near transit stops (Source: Ibid, page 11). In the case of LINK transit, the goal was to improve the existing stock, but there is also the option of partnering to develop new housing stock as seen in Dudley Village in Dorchester, Massachusetts. In Dudley Village, which sits along the Massachusetts Bay Transportation Authority Commuter Rail Line, there are 50 residential rental units, and 6,500 square feet of retail (Source: TOD Case Studies: Implementation in Low-Income, Ethnically Diverse Neighborhoods. Center for Transit Oriented Development, January 2007). All of the units are affordable, and this was made possible through the involvement of Dudley Neighbors, Inc. (DNI) and the Dorchester Bay Economic Development Corporation. “DNI bought the land for the project and leased it at a nominal rate to the developer, Dorchester Bay Economic Development Corporation for a 99-year term. This term allowed DBEDC to secure public financing for the rest of the development” (Source: Ibid).

For a portion of the residential component in the mixed-use development, SJRRC or the developer may consider working with the City's Housing Department or a local nonprofit. The Housing Department should be willing to offer assistance given the need for additional housing in downtown Stockton as a result of a settlement agreement between the City of Stockton and the Attorney General in conjunction with the Sierra Club. Additionally, workforce-oriented housing in the Cabral neighborhood would be beneficial not only for ACE line commuters, but also for a portion of the many people who are employed nearby in downtown Stockton.

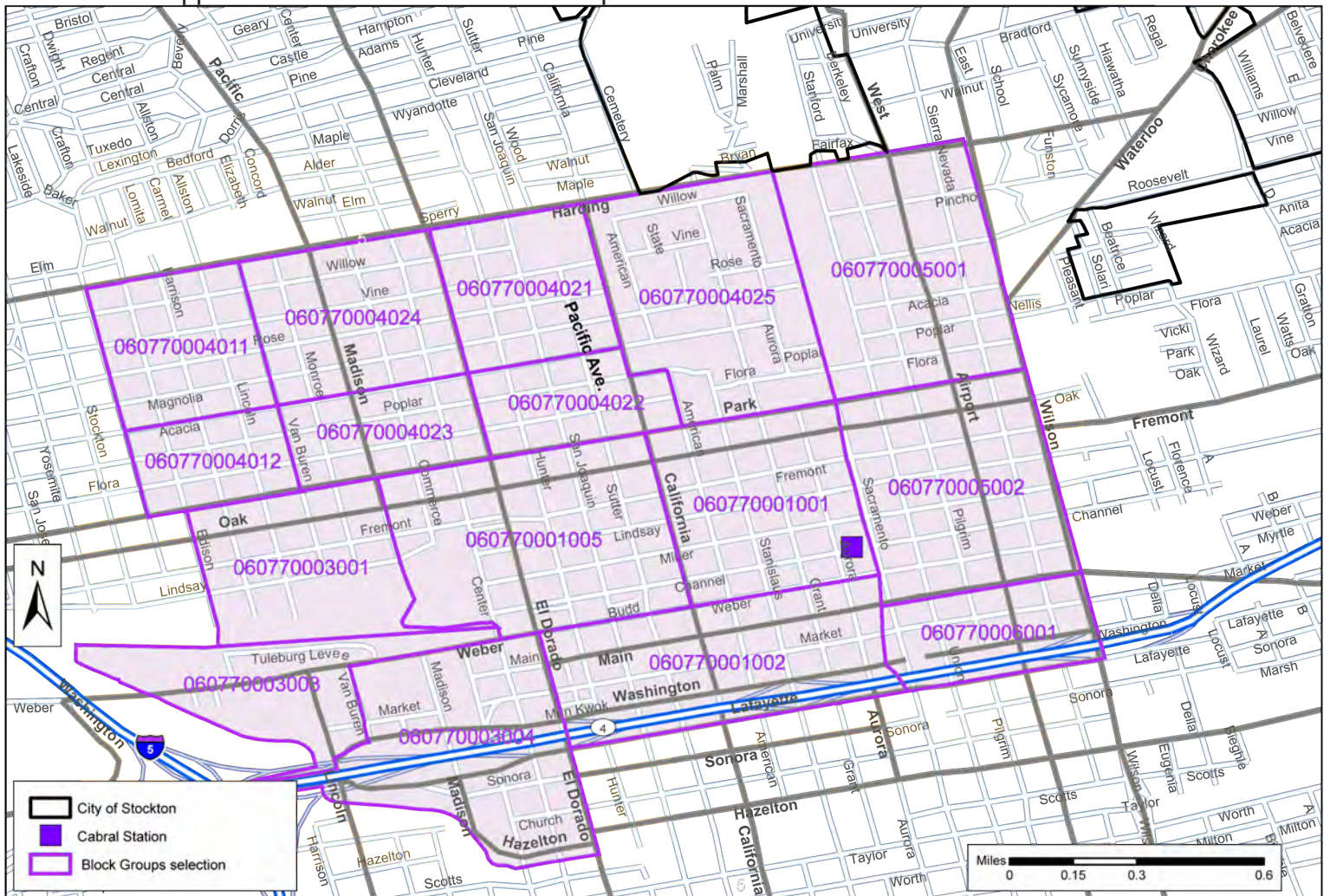
#### *Facilitate Needed Infrastructure Improvements*

Another key role often associated with public agencies is undertaking or facilitating infrastructure improvements that are needed to support TOD projects. Increasingly, public agencies recognize that making development sites “shovel ready” for their development partners enhances value.

The terms of the contract with a potential developer is another source of financing employed by other transit agencies throughout the U.S. Value capture can occur through many creative mechanisms including special assessment districts, and having new uses contribute to the cost of having pedestrian connections to the station (Source: Transportation Research Board of the National Academies. “Transit-Oriented Development and Joint Development in the University State” October 2002, page 66). In order to establish a special assessment district, SJRRC would have to work with the City and get the developer to agree to the terms of the proposed district. Then, the new developments within the new district would contribute annually on a square footage or dwelling unit equivalent basis to a City-managed fund earmarked for improving sidewalks, landscaping, etc. in the special district. The second option for value capture, having new uses pay for their connection to the station, was first employed by the Washington D.C. Metropolitan Area Transit Authority (WMTA) to cover a portion of the cost of a passageway from a station to a department store (Source: Ibid, page 66).

The goal of the contract should be for the San Joaquin Regional Rail Commission to collect some of the property value that it creates through “value capture.” One option would be to establish a cost-sharing arrangement with a potential developer to cover some of the cost of the proposed pedestrian bridge between Cabral Station and the proposed mixed-use site.

Appendix A: Central Stockton Site Map - BLOCK GROUPS



Sources: Claritas 2009; BAE, 2009.

**Appendix B: Existing Cabral Station Area Land Uses, November, 2009 (Page 1 of 2)**

Map No. (a)	APN	Zoning	Building Type	Use	Tenants
1	unknown	Industrial Limited (IL)	Stand alone	SJRRRC Admin. Offices and ACE Stockton Terminal	San Joaquin Regional Rail Commission (SJRRRC)
2	15111003	Industrial Limited (IL)	Vacant lot	Vacant with telecommunications equipment enclosure	Union Pacific Railroad
3	15111006	Industrial Limited (IL)	Stand alone	Auto body shop	Elite Auto Body and Detail
4	15116001 15116002 15116004 15116005 15116061 15116062 15116066	Industrial Limited (IL)	Stand alone	Warehouse	Miscellaneous tenants; ownership information not available for all parcels
5	15116060 15116072	Industrial Limited (IL)	Stand alone	Manufacturing	Production Chemical Manufacturing Inc.
6	15112051 15112054	Industrial Limited (IL)	Stand alone	Warehousing	County Fair Food Products along North Union Street. Miscellaneous tenants on back portion of block; ownership information not available for all parcels
7	15112003	Industrial Limited (IL)	Stand alone	Warehousing	Unknown
8	15112001	Industrial Limited (IL)	Stand alone	Towing company	Mid Valley Towing
9	15112004	Unzoned	n.a.	Public Park	Constitution Park
10	15112035 to 15112041	Industrial Limited (IL) and Residential, High Density (RH)	Stand alone	Single-family residential	Residents
11	15112044 to 15112047	Commercial General (CG) and Industrial Limited (IL)	Stand alone	Warehousing	Unknown
12	15116069 15116072	Commercial General (CG)	Stand alone	Warehousing	Unknown

Note:

(a) See Map in Appendix C.

Sources: City of Stockton, 2009; BAE, 2009.

## Appendix B: Existing Land Uses, November, 2009 (Page 2 of 2)

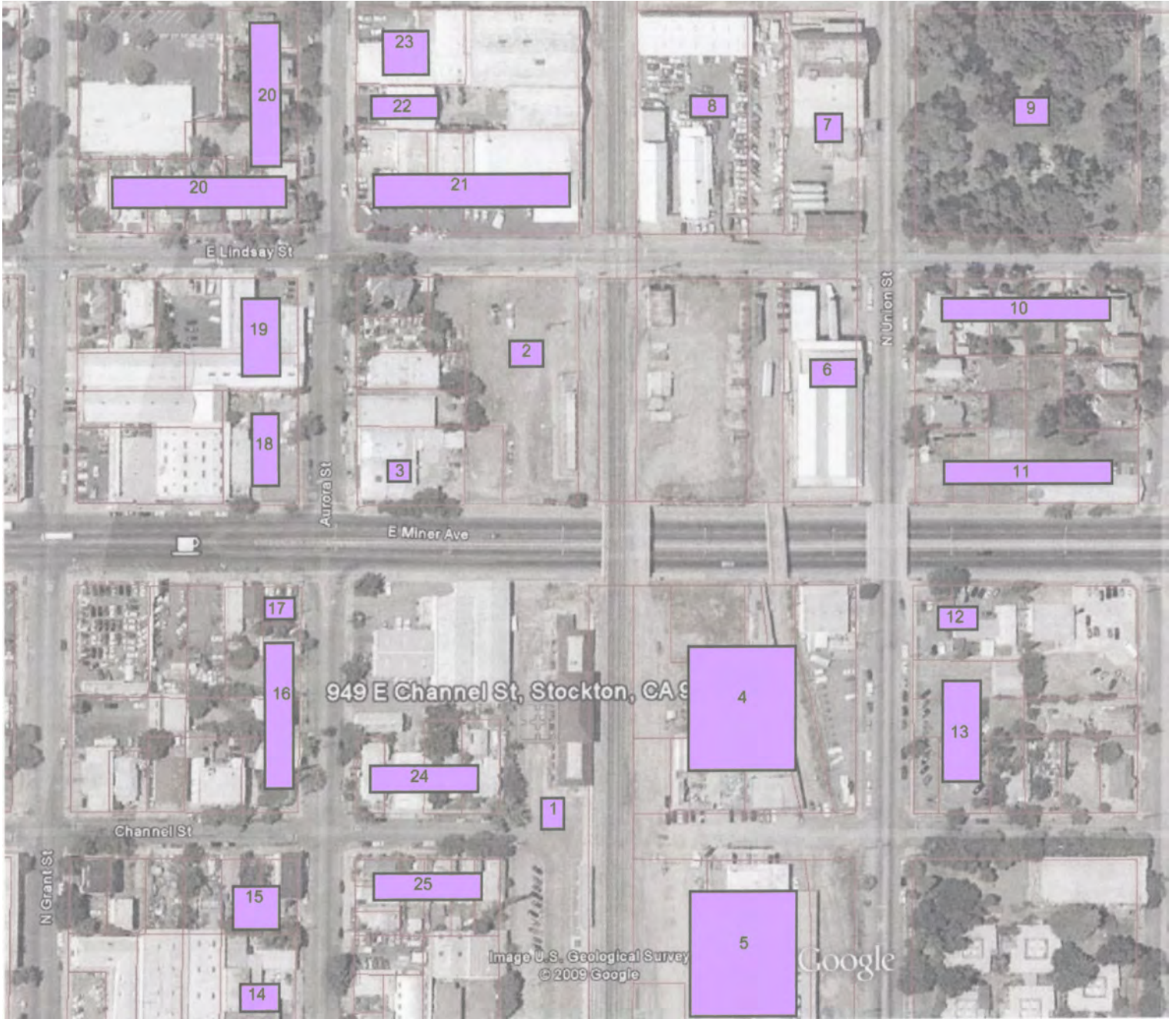
Map No. (a)	APN	Zoning	Building Type	Use	Tenants
13	15116016 to 15116021	Commercial General (CG)	n.a.	Parking	Unknown
14	13928007	Industrial Limited (IL)	Stand alone	Auto body shop	Weber Auto Body
15	13928005 13928006	Industrial Limited (IL)	Two Story	Unknown	Unknown
16	13930006 1390008 1390009 1390015	Industrial Limited (IL)	Two Story	Multifamily residential	Residents
17	13930005	Industrial Limited (IL)	Stand alone	Auto sales	Stockton Auto Sales
18	13932008	Commercial General (CG)	Stand alone	Industrial	Bryson Plumbing, Heating, and A.C.
19	13932011 13932007	Commercial General (CG)	Stand alone	Vacant	For lease
20	13933005 to 13933013 13933017 to 13933019	Commercial General (CG)	Stand alone	Single-family residential	Residents
21	15110003 15110004 15110005 15110008	Industrial Limited (IL)	Stand alone	Industrial	Western Alignment in a portion, building for lease by First  Commercial
22	15110002	Industrial Limited (IL)	Strip Center	Industrial	DDDesigns Industrial Control Panels
23	15110001	Industrial Limited (IL)	Strip Center	Industrial	Aurora Body Works
24	15114008 15114006 15114005	Industrial Limited (IL)	Stand alone	Single-family residential	Residents
25	15111001 15111003 to 15110107	Industrial Limited (IL)	Stand alone	Single-family residential	Residents

## Note:

(a) See Map in Appendix C

Sources: City of Stockton, 2009; BAE, 2009.

Appendix C: Map of Existing Cabal Station Area Land Uses



## **Appendix D: List of Traffic Analysis Zones**

### **Cental Stockton TAZ's**

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Sources: Fehr and Peers, 2009; BAE, 2009.

Altamont Commuter Express I Planning and Parking Strategy : Cabral Station





# Transit Sustainability

Potential Growth in Transit

03

## 3.0 Transit Ridership Growth Recommendation

1. Stockton Cabral Station currently has the second-lowest supply of parking spaces of all ACE stations along the ACE Corridor, as a percent of station area catchment and the lowest percentage of passengers who think that parking availability is excellent. Some benefit to ridership could likely be achieved with increasing parking supply. (Source [3.1.4] Table 3 “Transit Sustainability” Fehr & Peers, 2010).
2. Much of the ridership growth at Cabral Station is anticipated to come from the station TOD and other new developments in Downtown Stockton, where non-auto modes of access to the train would be convenient for many passengers. Therefore we recommend only a modest increase of parking supply to the ratio currently provided at Lathrop / Manteca station. This results in a supply of 342 spaces in 2015 and 420 spaces in 2025. (Source [3.1.4] Table 3 “Transit Sustainability” Fehr & Peers, 2010).
3. Typical weekday ridership at Cabral Station, currently 209 riders, is anticipated to grow to between 320 and 740 riders in 2015 and between 540 and 1,090 riders in 2025, depending on the train frequency and whether ACE is extended to Sacramento. (Source [3.1.4] Table 5 “Transit Sustainability” Fehr & Peers, 2010).
4. The 1/2 mile radius around the Cabral Station is approximately 34 acres and includes approximately 825 multi-family dwelling units, 10 single-family dwelling units, 740 office jobs, and 152 retail jobs. (Source [3.2.3] Table 4 “Transit Sustainability” Fehr & Peers, 2010).
5. The proposed development will generate about 18 percent fewer vehicle trips and about 20 percent less Vehicle Miles Traveled (VMT) on a daily basis than a typical development in San Joaquin County as a result of its smart growth “D”’s characteristics. (Source [3.2.4] “Transit Sustainability” Fehr & Peers, 2010).
6. The proposed development will generate about 39 percent less vehicle miles traveled (VMT) on a daily basis than a typical development in San Joaquin County as a result of the combination of its smart growth “D”’s characteristics and the presence of the train station. (Source [3.2.4] Table 3 “Transit Sustainability” Fehr & Peers, 2010).

## 3.1 Transit Ridership Growth

### 3.1.1 Introduction

As part of the Stockton Cabral Station Planning Study led by Gensler and included in this report, Fehr & Peers has developed a Direct Ridership Model (DRM) for use in forecasting ACE ridership growth at the station, and to assist in estimating parking structure size for mixed-use planning at and around the station. This chapter presents the DRM and forecasts in a variety of scenarios and conditions, containing the following sections:

- Data Collection
- Direct Ridership Model Development
- Direct Ridership Forecasts
- Parking Supply for Transit Users

A follow-up memo will discuss potential VMT reduction benefits as a result of mixed-use planning efforts in the station area, obtained from a mixed-use trip generation model developed by a nationwide research team that included Fehr + Peers.

### **What is a Direct Ridership Model?**

Direct Ridership Models use multivariate regression and other statistical models based on empirical local data to determine the station characteristics that most influence rail transit patronage. They respond directly to factors such as parking, feeder bus levels, station-area households and employment, and the effects of transit-oriented development (TOD). Direct Ridership Models are a more efficient and responsive means of forecasting the effects of individual station activities than conventional transit patronage models. Rail ridership is traditionally forecast with region-wide travel demand models, which often represent transportation networks and land use at an aggregate scale. Such models are relatively unresponsive to changes in station-level land use and transit service characteristics. Direct Ridership Models are directly and quantitatively responsive to land use and transit service characteristics within the immediate vicinity and/or within the catchment area of existing transit stations.

The Direct Ridership Model in this study is a relatively simple one that relates daily train boardings on the current Altamont Commuter Express (ACE) system to three station characteristics: catchment population, accessible catchment employment, and station parking spaces. Due to the changing nature of the system projected for the future, several “off-model” adjustments are made to the forecasts to account for factors not currently present in the ACE system.

## **3.1.2 Data Collection**

### **Data from ACE**

ACE provided Fehr & Peers with current data for the nine operating ACE stations. The data included physical attributes such as the number of station parking spaces, number of station bicycle spaces, feeder transit to the station, distance from the nearest freeway, number of directions accessible by pedestrians, and in-train travel times between stations. Current ridership levels were also provided in average daily number of boardings. In addition, ACE provided the 2009 ACE Passenger survey which contained questions that help reveal travel patterns and characteristics for ACE passengers.

### **Data compiled by Fehr & Peers**

In direct ridership modeling, it is common to assign a “catchment” area for each station in the system being studied. This catchment area represents the geographic bounds in which the station effectively serves. These areas are usually measured in terms of population (for those wanting to use the station as their departure point) and employment (for those wanting to use the station as their arrival point).

For population it is not always as simple to draw buffers around each station and assign the resulting populations to each station. The buffers can sometimes overlap and then double count population. Furthermore, if there is a population segment outside simple buffers, most of them will travel to the station which is the closest. This is the case with the Lathrop/Manteca ACE station, which effectively serves the Central Valley in addition to its traditional buffer catchment population.

The 2008 ACE Passenger survey was used to determine where users of the station were traveling from to access the station. Once geographic areas were assigned to each station, the 2008 American Community Survey (ACS) estimates of population by city were used to determine catchment population. In the case of a geographic area showing up in two different stations from the survey, our best judgment was used to determine which fraction

TABLE 1 2008 CATCHMENT POPULATION		
Station	Geographic Areas	Catchment Population
Stockton (Cabral)	80% of Stockton	229,630
Lathrop/Manteca	20% of Stockton, Lathrop, Manteca, Ripon, Salida, Escalon, 90% of Modesto, Riverbank	377,213
Tracy	Tracy, Patterson, 10% of Modesto	118,527
Vasco	50% of Livermore, Mountain House	50,024
Livermore	50% of Livermore	40,094
Pleasanton	Pleasanton, Dublin, San Ramon, Danville	201,468
Fremont	Fremont	202,867

Source: American Community Survey, 2008. Fehr & Peers, 2010.

of the geographic area would go to which station. Eighty percent of the city of Stockton's population was assigned to Stockton (Cabral) station. Table 1 shows the assignment of geographic areas and the resulting catchment population for each of the ACE stations. The Great America and San Jose stations were omitted for reasons to be shown later.

For employment it is logical to assume that a half-mile buffer around the station would serve as the effective "supply" of employment for those departing the station. Because it is unlikely that a passenger will have a car at their departure station, this acts as a maximum distance one would likely walk to work. This number can be modified by other modes of transportation available to transport people from their arrival station to their place of employment. In the case of the ACE system, there are employment shuttles that serve the Pleasanton, Great America, and San Jose stations. Thus the catchment employment is estimated to be the half-mile employment around the station plus any employment that is reachable by shuttle.

Measuring this employment required the use of Travel Demand models. These models contain Traffic Analysis Zones (TAZs) which represent geographic boundaries in which land use (such as housing and employment) can be accurately measured. Because of the scale of the ACE system, several Travel Demand models were used for this effort. The City of Stockton Travel Demand Model was used for the Stockton and Lathrop/Manteca stations. The San Joaquin Council of Governments (SJCOG) Travel Demand Model was used for the Tracy station. The Alameda County Congestion Management Agency (ACCMA) Travel Demand Model was used for all other stations. Because these models did not have a 2009 land use scenario, 2009 land use was interpolated between existing and future land use projections contained within the model. Once 2009 land use had been calculated and used in the models, the catchment population was measured using geographic analysis software.

If any part of a TAZ was within a half-mile of a station, it was considered to be included in its catchment employment. Employment reachable by shuttle for the three stations where employer shuttle use was frequent (Pleasanton, Great America and San Jose) was estimated by looking at the shuttle route maps and assigning TAZs to stations that the shuttles were able to serve. Table 2 shows the catchment employment for the ACE stations. Although employer shuttles are present at Livermore, Fremont and Vasco stations, survey data indicates that the levels of usage for those shuttles to and from ACE are relatively low compared to Pleasanton, Great America and San Jose. The Stockton, Lathrop/Manteca, and Tracy stations were omitted from shuttle consideration for reasons to be discussed later.

TABLE 2 2008 CATCHMENT EMPLOYMENT		
Station	Employment Shuttles Frequently Used From ACE?	Catchment Employment
Vasco	No	11,889
Livermore	No	5,766
Pleasanton	Yes	30,436
Fremont	No	4,474
Great America	Yes	191,508
San Jose	Yes	43,006

Source: Fehr & Peers, 2010.

### 3.1.3 Direct Ridership Model Development

#### Variables Tested

The development of the DRM involves trying many test cases including any number of combinations of the data collected above. Some variables are chosen because logically they would affect ridership numbers. Because of this, the catchment population and employment variables were chosen to be in the model at an early stage. After a large number of test cases, the only other variable that affected ridership in a statistically significant manner was the number of station parking spaces.

#### Further Assumptions

Review of the selected variables led to a unique realization. At early stages, all of the ACE stations were assigned both a catchment population and employment. The unique operation of the ACE system (primarily serves to transport population from the east to the jobs in the west) presented a problem for this initial setup. Stations such as Great America and San Jose, which have large catchment populations, were initially causing problems because of their population. The purpose of the catchment population is to highlight the magnitude of potential users of the system. Because ACE only runs from the San Jose and Great America stations in the evening, it does not serve the population from these stations. Thus it was assumed that the San Jose and Great America stations would have zero catchment population.

The same argument holds true for the catchment employment variable. The Stockton, Lathrop/Manteca, and Tracy stations do not receive passengers in the morning (normally when one would be going to their job). Thus it was assumed that the Stockton, Lathrop/Manteca, and Tracy stations would have zero catchment employment.

### Final Model

With the variables selected and adjusted to their final values, a linear regression was carried out to determine the number of daily boardings for the catchment population, catchment employment, and station parking spaces variables. The equation for the fitted regression was:

$$\text{Daily Boardings} = 0.80 * (\text{Catchment Population} / 1000) + 3.47 * (\text{Catchment Employment} / 1000) + 0.38 * \text{Parking Spaces}$$

Figure 1 presents the ridership for the ACE stations as predicted by the above equation versus the actual daily boardings.

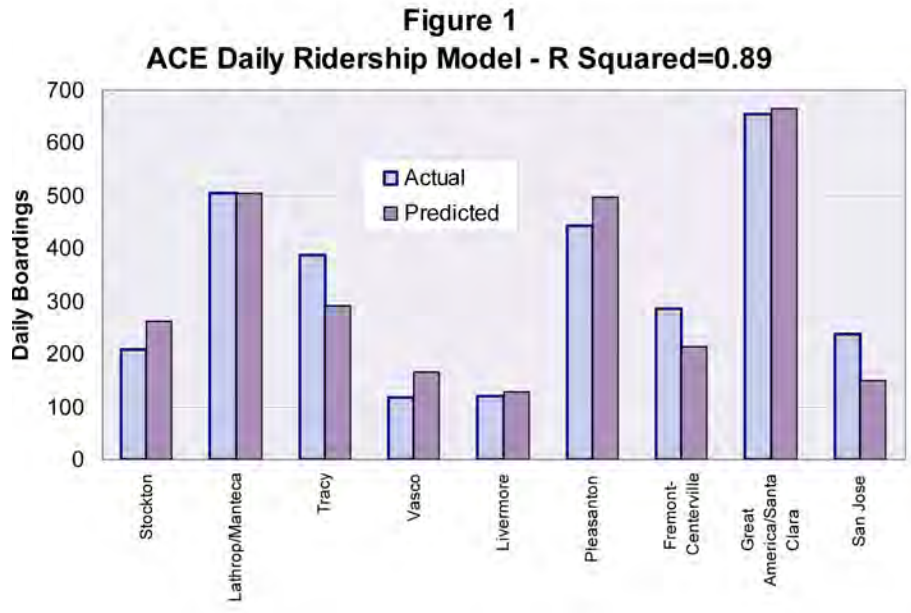


Figure 1 shows that the model predicts daily ridership accurately both at an individual station level and when looking at relative numbers of riders among the different stations. In addition, the model's R2 value is 0.89. R2 represents the portion of ridership variation which is explained by the model, with possible values ranging from zero to 1.

Of particular importance is the predicted daily boardings for the Stockton (Cabral) Station. The predicted model slightly overestimates daily boardings at the Stockton (Cabral) Station (261 vs. 209). This difference is accounted for in the forecasts through a calibration process.

### 3.1.4 Direct Ridership Forecasts

This section will consist of defining the scenarios in terms of the DRM's input variables, presenting the off-model adjustments made to account for factors that can't be modeled with existing ACE data, and then presenting the rail ridership estimates at Cabral Station.

#### Scenarios

As discussed in the previous section, the DRM is able to provide a quick response forecast to any scenario defined in terms of its input variables, catchment population, employment within a half-mile and/or accessible by shuttle, and number of parking spaces at the station. In order to perform forecasts for both a near-term year of 2015 and a long-term year of 2025, we must at the minimum define these variables for Cabral Station for both forecast years.

#### *Land Use*

The land use variables were obtained for the forecast years in the same fashion as for the base year of 2009. Projections for the population of Stockton were taken from the 2007 SJCOG Regional Transportation Plan (RTP). Future catchment employment of the Stockton (Cabral) Station was interpolated from the City of Stockton Travel Demand Model land use projections.

Note that these figures do not include station area TOD; that will be accounted for in the subsequent discussion of off-model adjustments.

#### *Station Parking Spaces*

The size of the parking structure, being the ultimate goal of this study, cannot be predicted with the DRM; rather, some size must be assumed in order to assist the DRM in predicting transit ridership. In order to assess the optimal number of parking spaces to meet the planning goals of the transit component of Cabral Station, we studied the existing ACE stations' parking supplies relative to the area residents they serve (i.e. the catchment populations). Table 3 presents the ratio of station parking spaces to catchment population (in thousands) for each current ACE station with parking facilities. The table also includes the percentage of 2008 surveys at each station where the passengers responded "Excellent" when asked to rate availability of parking spaces.

Increasing parking supply will assist in the public perception of ease and accessibility to the ACE passenger service. This will increase ridership directly. Ultimately one would reach a point where there is enough parking to satisfy all the demand, and adding new spaces would show diminishing returns in satisfaction. Stations such as Tracy, Vasco and Livermore have 4 to 5 spaces per 1000 catchment population, and it appears from the data above that there is still a benefit to increasing supply in that range, but with diminishing returns once the ratio of 5 is reached.

**TABLE 3  
2009 PARKING SUPPLY AT ACE STATIONS**

Station	Parking Spaces	Catchment Population / 1000	Ratio	% Excellent
Stockton (Cabral)	200	230	0.9	39%
Lathrop/Manteca	525	377	1.4	51%
Tracy	510	119	4.3	57%
Vasco	216	50	4.3	71%
Livermore	200	40	5.0	77%
Pleasanton	600	201	3.0	59%
Fremont	92	203	0.5	40%

Source: Fehr & Peers, 2010.

However, the benefits of this must be weighed with both space limitations to the parking structure size and the desire to reduce the single-rider automobile access mode share for planning and environmental reasons. In addition, much of the future ridership at Cabral Station is anticipated to come from the station TOD and other new developments in Downtown Stockton, where non-auto modes of access to the train would be convenient for many passengers.

Therefore, we recommend a more modest increase of parking supply, to the ratio currently provided at the Lathrop / Manteca station of 1.4 spaces per 1000 catchment population. Applying this ratio to the projected catchment area populations results in a parking structure with 342 spaces in 2015 and 420 spaces in 2025.

Please note that the parking supply discussed in this report represents only parking spaces dedicated for train passengers; if additional spaces dedicated to parking for the residential, retail and/or office uses around the station are desired, those would have to be added to the above numbers for the purposes of sizing the structure, although they would not be counted in ridership forecasts.

Table 4 summarizes the forecast assumptions for 2015 and 2025, and compares them to 2009 levels. Note that this does not include Station area TOD, or any changes to the variables as a result of High Speed Rail, both of which will be discussed in the following subsection. Please also note that just as the employment numbers were not included in the base year mode calibration due to the lack of current service into Stockton in the morning, it will only be included in forecasts where that service would be provided.



<b>Input Variable</b>	<b>2009</b>	<b>2015</b>	<b>2025</b>
Catchment Population	229,630	245,815	302,363
½ Mile + Shuttle Accessible Employment	9,243	13,327	16,086
Parking Spaces	200	342	420

Notes:  
 1. Does not include Station Area TOD or effects of High Speed Rail.  
 2. Employment is only taken into account in two-way service scenarios.  
 Source: Fehr & Peers, 2010.

### Off-Model Adjustments

Beyond the three inputs into the base year DRM, several significant changes to the rail service and station area at Cabral Station which would affect ridership are anticipated. These changes include:

- Increased train speeds, such that the trip from Stockton to San Jose would be reduced from 130 minutes to 65 minutes.
- An increase in train frequency from 4 to 12 trains per day in each direction
- Extension of ACE service north to Lodi and Sacramento and south to Merced
- Development of station area TOD
- Addition of High Speed Rail (HSR)

Because none of these items are currently present, it was not possible to account for them in a Direct Ridership Model based on current ACE system travel patterns and ridership levels. Instead, a variety of external sources were consulted, and ridership forecasts were adjusted and judged for reasonability. This section presents these off-model findings and the adjustments.

#### *Increased Train Speeds*

Although the Pacheco Pass route was selected in 2008 as the preferred route for High Speed Rail in the Bay Area, the California High-Speed Rail Authority (CHRSA) is currently pursuing an infrastructure project in the Altamont Pass corridor that would upgrade ACE service to speeds of approximately twice current levels. ACE estimates that the trip from Stockton to San Jose would take only 65 minutes instead of its current 130 minutes.

Source: Thomas Reeves, SJRRC / ACE, November 30, 2009

The High Speed Rail Financial Report in August 2007 reported Ridership forecasts for several different configurations. One of the configurations was a "Pacheco + Altamont" configuration that would align the High Speed Rail on the Pacheco Pass but provide high speed feeder service over the Altamont Pass, similar to the ACE upgrade being proposed. Another configuration was a Pacheco Pass only scenario, where the Altamont Pass high speed feeder service was not present. Thus, we can reference the difference between those forecasts as an indicator of how Ridership would benefit from this upgrade.

Source: Bay Area / California High-Speed Rail Ridership and Revenue Forecasting Study, Cambridge Systematics, August 2007

The report predicts a 12 percent increase in intraregional commuter trips between Sacramento / Stockton and San Francisco / San Jose when the upgrade service is added. The forecasts combine riders from Sacramento and Stockton, and combine commute trips to San Francisco and San Jose, but we feel it is reasonable to assume that all combinations, including Stockton to San Jose, would benefit comparably from such an upgrade. Without the upgrade, the trip from Stockton to San Jose would be approximately 82 minutes, because passengers would have to ride to Merced and then change direction. But with the upgrade in place across the Altamont Pass, the travel time improves to 65 minutes, which is a 27 percent decrease in travel time, or a 27 percent increase in train speed. Thus we can derive an “elasticity” of 0.45, equal to the 12 percent increase in riders divided by the 27 percent increase in train speed.

In our forecasts in this chapter, rather than comparing the improved ACE service to High Speed Rail via Merced, we are comparing it to the current ACE service, with a 130-minute trip from Stockton to San Jose. Thus, there is a 100-percent increase in train speed, and using our elasticity of 0.45, we estimate a 45 percent increase in ridership.

### *Increases in Train Frequency*

An elasticity for train frequency can be obtained through Chapter 9 or TCRP-95, a trusted source for travel demand statistics pertaining to travelers’ responses to transit service changes. The publication reports median transit frequency elasticities of between 0.4 and 0.5 in various studies performed from the 1960s to the present. Using the conservative end of this range, an elasticity of 0.4, a 200 percent increase in train frequency would lead to an 80 percent increase in ridership.

Source: Transit Cooperative Research Program, Transit Scheduling and Frequency – Traveler Response to Transportation System Changes

### *Extension of Train Service to Sacramento*

If the current ACE service were extended northward to Sacramento, Cabral Station could become a commuter destination for passengers who live in Sacramento or Lodi and work in Stockton near Cabral Station. To account for this, we treated Stockton like other mid-line stations and counted both population and employment, rather than just population, in the forecasts. We used the City of Stockton Travel Demand Model’s projections for employment within a half-mile of Cabral Station and interpolated appropriately to estimate employment levels for 2015 and 2025.

*Development of Station Area TOD*

Based on conversations with the project team, the general land uses projected for our forecast years include:

- 100 apartment-like dwelling units to be constructed by 2015
- 10,000 sq. ft. of office space by 2015
- 6,000 sq. ft. of retail space in 2015 and 12,000 sq. ft. of retail space by 2025

Accounting for these land uses simply by plugging them into the ACE DRM would underestimate their benefit to train ridership. This is because the ACE DRM, being limited by the current ACE ridership patterns, is unable to account for:

- The TOD residents' proximity to the train station
- Increases in train frequency and speed (the 2004 study was done with TODs near transit more comparable to the future ACE service than the present ACE service)
- "Self-Selection," i.e. the tendency of residents in TOD to consist of people who choose to live there due to its proximity to transit.
- Financial incentives to use transit provided by employers.

In reality, residents living next to the train station and workers with jobs next to the train station would be far more likely to use ACE as their primary mode of transit for commuting purposes.

For residents, a well-recognized 2004 study found that the mean share of commute trips by transit in 26 surveyed TOD housing projects was 27 percent. Based on census information, we would expect about 140 employed residents in 100 dwelling units, which translates to an additional 38 ACE riders.

Source: Lund, Cervero Willson (January 2004), *Travel Characteristics of Transit-Oriented Development in California*

For jobs adjacent to the station, the 2000 MTC Bay Area Travel Survey reported that workers are about 10 times as likely to ride rail if their jobs are within a half-mile of rail or ferry transit. We believe the ratio would be higher, on the order of 100, because:

- In contrast to most BART and Caltrain stations which were studied by MTC, Stockton does not have frequent bus service in most parts of its catchment that are not near the downtown area.
- For jobs that are immediately adjacent to the train station, the ratio would be higher than if the jobs were just generally within a half-mile.
- There would likely be financial incentives to use transit provided by employers.  
Metropolitan Transportation Commission, *Characteristics of Rail and Ferry Station Area Residents in the San Francisco Bay Area: Evidence from the 2000 Bay Area Travel Survey*

The ACE DRM predicts about 3.5 workers per 1000 in the catchment will ride transit. Applying the ratio of 100, about 35 percent of the employees in the station area TOD would use the train as their primary mode for commuting. Using typical jobs / 1000 sq. ft. ratios of 2.0 for retail, and 3.0 for office, there would be 42 jobs adjacent to the station in 2015, and 54 jobs in 2025. This in turn results in 15 new riders by 2015 and 19 new riders by 2025.

Please note that planning for the station area is still in its early stages, and any changes to the land use quantities discussed in this section would have an effect on the final forecast numbers.

#### *Addition of High Speed Rail (HSR)*

The August 2007 HSR Financial Report forecasts 8,832,785 annual boardings at Stockton and Sacramento with the Altamont + Pacheco Pass service alignment. The report does not break these up into separate boardings for Stockton vs. Sacramento in this alternative, and the total includes the commuter trips to destinations along the current ACE corridor, which we've already accounted for by increasing train speeds and frequencies. To derive an estimate of typical weekday HSR passengers from Stockton to destinations other than the Bay Area, we assumed:

- 40 percent of business / commute trips from Stockton are to destinations along the current ACE corridor (others would be largely to San Francisco and Sacramento)
- The relative number of riders at Stockton vs. Sacramento would be about 17 percent, based on the relative populations of the two cities and their outlying areas.
- A typical weekday has about 1.5 times as many riders as a typical weekend or holiday

Incorporating these assumptions resulted in 3,684 additional boardings per day on High Speed Rail, to destinations other than the ones currently served by ACE.

### *Rail Ridership Estimates*

Table 5 compiles the ACE DRM with the above off-model adjustments, and presents forecasts for a wide variety of scenarios. The first row presents current conditions for comparison. As Table 5 shows, even without High Speed Rail present, total ridership at Cabral Station could be up to five times its current levels by 2025 if the TOD, train speed and train frequency improvement strategies are all implemented, with only modest levels of parking supply added.

TABLE 5 RAIL RIDERSHIP FORECASTS AT CABRAL STATION							
Year	Train Frequency	Extension of ACE to Sacramento	High Speed Rail	TOD Dwelling Units	TOD Jobs	Parking Spaces	Typical Weekday Ridership
2009	4	No	No	0	0	200	209
2015	4	No	No	100	42	342	323
2015	4	Yes	No	100	42	342	488
2015	12	No	No	100	42	342	539
2015	12	Yes	No	100	42	342	736
2025	4	No	No	100	54	420	546
2025	4	Yes	No	100	54	420	773
2025	12	No	No	100	54	420	816
2025	12	Yes	No	100	54	420	1,084
2025	12	Yes	Yes	**	**	**	4,768

Source: Fehr & Peers, 2010.  
 \*\* Additional TOD would be likely and additional parking spaces for transit patrons would be needed with the presence of High-Speed Rail, the amounts of which are outside the scope of this study.

### 3.1.5 Parking Structure Size

#### *Without High Speed Rail*

As discussed earlier, we assumed there would be 342 spaces provided in 2015 and 420 in 2025 to accommodate improvements to ACE without HSR, and general growth within the region. This would represent a modest increase in parking supply relative to station catchment population to levels currently supplied at Lathrop Station. These would be the parking spaces provided only for train passengers; additional spaces dedicated to parking for other uses around the station would have to be added to the above numbers for the purposes of sizing the structure.

It should be noted, however, that due to the significant increases in ridership anticipated with the improvements, the scenarios with 12 trains per day provide as few as 0.4 parking spaces per rider. The TOD residents and employees would not need parking spaces, but they make up a relatively small portion of the ridership.

Currently about 60 percent of the people who board ACE at Cabral Station drive and park. To reduce this to 40 percent, strategies such as additional development in the downtown area, feeder bus service, reserved spaces for carpooling, secure bicycle lockers and incentives for commuters to take alternate modes to access the train would need to be implemented to ensure optimal operation of the station. Conversely, to maintain a ratio of 0.6 spaces per rider, ACE would need to provide as many as 442 parking spaces in 2015 and 650 spaces in 2025 if both the speed and frequency improvements were implemented.

#### *With High Speed Rail*

The addition of High Speed Rail would increase the number of passengers boarding at the station more than four-fold. It is likely that a significant portion of the planned Downtown Stockton development, both residential and office, would occur near the station in that scenario. The parking structure sizes feasible with the current station area plans would not be adequate to accommodate that level of development. Ridership patterns at the station would likely become more symmetric with respect to passengers boarding in the AM vs. the PM periods, but even if ridership were completely symmetric, and if strategies to reduce the drive and park mode share to 40 percent for those who board in the AM were successful, there would still be a demand for 954 parking spaces. This is based on the 4,768 riders / day number above, multiplied by 50 percent (because half the riders would be parking at the other end of their trip), and further multiplied by 40 percent for the drive and park mode share. If the current drive and park mode share of 60 percent were the target, 1,430 spaces would be necessary.

## 3.2 Mixed-Use Trip Generation

### 3.2.1 Introduction

This section provides a discussion of vehicle trip and vehicle miles traveled (VMT) reduction benefits as a result of mixed-use planning efforts in the station area. These benefits were obtained from a mixed-use trip generation model (“MXD model” for short) developed by a nationwide research team that included Fehr & Peers.

The MXD model is a quantitative model that attempts to capture the vehicle traffic reduction effects of mixed-use development and improve on current trip generation methods that rely on conventional travel demand models or rates and adjustments from the Institute of Transportation Engineers (ITE). These current methods are believed to understate the vehicle traffic reduction of mixed-use developments, leading to excessive traffic impacts and related mitigation that can discourage development of otherwise desirable projects. ITE is currently reviewing the model for potential inclusion in their updated recommended practice for evaluating mixed-use projects.

Illustrating the reduction in VMT from characteristics of a mixed-use site is also important for any future planning effort, because of the direct relationship between VMT and greenhouse gas (GHG) emissions. California Assembly Bill AB32 requires the state to reduce its GHG emissions to 1990 levels by 2020 (30 percent below business as usual) and Senate Bill SB 375 establishes region-based emission-reducing targets to help the state achieve the AB32 goals. Amendments to the CEQA guidelines addressing GHG emissions will also be adopted in March 2010.

The MXD model is intended for use in traffic impact analyses, the development of Smart Growth Trip Generation Guidelines, and other transportation studies requiring trip generation calculations from a mixed-use development. This section contains the following sections:

- Summary of MXD model
- Station Area Assumptions
- MXD model results
- VMT Benefits

## 3.2.2 Summary of MXD Model

### Model Structure and Outputs

The MXD trip generation model consists of four steps to achieve an estimate of daily vehicle trips on external roadways generated by a mixed-use development (MXD). There are actually four outputs, although outputs 2-4 have not been formally validated, largely due to lack of data for validation. The four steps and outputs are:

1. Compute daily trip estimates using the equations from the ITE Trip Generation Manual (these are referred to as “Raw ITE Trips”). These estimates do not assume any internalization, and only minimal trips made by walking and/or transit modes.
2. Compute the probability of a trip staying internal to the MXD.
3. Compute the probability an external trip will be made by walking.
4. Compute the probability an external trip will be made by transit.

Mathematically, if we call the above probabilities generated in steps 2-4 above  $P_{\text{internal}}$ ,  $P_{\text{walk}}$ , and  $P_{\text{transit}}$ , respectively, the desired result of number of external vehicle trips is given by:

$$\text{Raw ITE Trips} * (1 - P_{\text{internal}}) * (1 - P_{\text{walk}} - P_{\text{transit}}).$$

### Model Inputs

The three probability models depend on variables which are characteristics of the MXD, either input or calculated by the spreadsheet. The variables for  $P_{\text{internal}}$  are:

- Employment
- Land Area
- Jobs/ Population Diversity (a measure of balance between jobs and residents)
- Number of Intersections Per Square Mile
- Average Household Size
- Vehicles Owned Per Capita



The variables for Pwalk are:

- Land Area
- Jobs/Population Diversity (a measure of balance between jobs and residents)
- Retail Jobs/Population Diversity (a measure of balance between retail and non-retail jobs)
- Employment Within 1 Mile
- Population + Employment Per Square Mile
- Number of Intersections Per Square Mile
- Average Household Size
- Vehicles Owned Per Capita

The variables for Ptransit are:

- Employment
- Number of Intersections Per Square Mile
- Employment within a 30-minute trip by transit
- Average Household Size
- Vehicles Owned Per Capita

Many of these variables are examples of the “Ds” that are known to influence travel behavior - density, diversity, development scale, design, and distance to transit.

### **Model Validation**

A set of 16 independent mixed-use sites that were not included in the initial model were tested to help validate the model. Validation sites were mixed-use developments and areas ranging in size from approximately five acres to over 1,000 acres.

Among the validation sites, use of the model produced a significantly lower root mean squared error (RMSE) and pseudo-R squared than traditional methods when comparing estimated to observed external vehicle trips. Estimates from the ITE Trip Generation Manual had an RMSE of 40 percent and pseudo-R squared of 0.58, modified estimates using ITE's traditional trip internalization techniques had an RMSE of 32 percent and pseudo-R squared of 0.73, whereas modified estimates using the model developed had an RMSE of only 26 percent and pseudo-R squared of 0.82.

### 3.2.3 Station Area Assumptions

The MXD model requires specific values to calculate the model inputs discussed in the section above. In the early stages of the planning process, not all the inputs can be determined precisely. The following sources were used to determine the most accurate possible inputs:

- The Cabral Station Neighborhood Revitalization Plan (Opticos, 2009) was used to estimate site acreage, intersection density, and square footage for both residential and commercial land uses.
- Development intensity standards were referenced from Chapter 3 of the December 2007 Stockton General Plan Goals and Policies Report, using 20 to 75 dwelling units per net acre, with an FAR of 2.0 to 3.0 (at Gensler's direction) for commercial uses. The non-commercial uses were assumed to be 75 percent offices and 25 percent retail.
- City of Stockton Travel Demand Model data, corresponding to General Plan assumed growth was used to determine the employment level within one mile of the station.
- The average household size for dwelling units in the station area was set at 2.5, slightly lower than the 2000 census Stockton average size of 3.14. The average vehicle ownership per household was set at 1.5, slightly lower than the 2000 California travel survey average of 1.9 for San Joaquin county. The rationale behind both of those assumptions was that TOD and apartment residents are more likely to be single occupants or roommates, as opposed to families, and less likely to own vehicles, than the City of Stockton as a whole.
- SJCOG RTP Projections were used to determine the number of jobs within 30 minutes by transit, assuming all the jobs in the city of Stockton would be accessible by bus within 30 minutes.

Estimates from the intensity levels and conceptual plan drawings resulted in the following land uses within the station area (roughly 34 acres):

- 825 multi-family dwelling units
- 10 single-family dwelling units (these are all existing units that will remain)
- 227,000 sq. ft. of office space (749 jobs using ITE-based ratios)
- 76,000 sq. ft. of retail space (152 jobs using ITE-based ratios)

Please note that only a 2025 analysis is presented here, because the final results for 2015 and 2025 results were quite similar. The results in this section can be interpreted as applying to when the area is fully developed.

### 3.2.4 MXD Model Results

Table 1 presents the results of applying the MXD model to the Cabral Station planning area. The “raw” numbers represent the number of vehicle trips that the area would generate using purely ITE Trip Generation Manual rates. The “net” numbers represent the number of vehicle trips that the area would generate using the reduction estimates provided by the MXD model. Please note that these numbers do not include vehicle trips generated by the train station itself; that number will vary considerably depending on the transit service assumptions. The purpose of this analysis is to provide an estimate of reduced traffic impacts as a result of the smart growth “Ds” characteristics that are known to influence travel behavior.

<b>Table 1 – 2025 MXD Model Estimates of Vehicle Trips Generated By Cabral Station Area</b>			
	<b>Raw Vehicle Trips</b>	<b>Net Vehicle Trips</b>	<b>Reduction Pct.</b>
Daily	13,438	10,980	18%
AM Peak Hour	917	768	16%
PM Peak Hour	1,347	1,119	17%
Source: Fehr & Peers, 2010.			

### 3.2.5 VMT Benefits

Although the MXD model does not predict VMT directly, estimates of VMT can be made by multiplying the numbers of vehicle trips generated by the average trip length. Vehicle trips can be separated into three different trip purposes – home-based work, home-based other, and non-home-based, based on the project area’s land uses and industry standard trip purpose distributions. In doing so, one is able to multiply the trips for each of those purposes by an average trip length for that purpose. This increases the accuracy of the VMT calculation, because trip lengths are generally longer for work trips than other trips.

Using past travel model results observed by Fehr & Peers, average trip lengths were assumed to be 13 miles for home-based work trips, and seven miles for other trips. Trip lengths for the small number of vehicle trips that remained internal to the station area were assumed to be ¼ mile. However, in the calculation of net VMT, the home-based work trips that shifted to transit were given an average trip length of 50 miles. This accounted for the fact that commute trips on ACE are longer than the average work trip; the typical ACE commute trip from Stockton ranges from 40 miles (Pleasanton) to 80 miles (Santa Clara), but with many of the trips going to Sacramento (50 miles away), assuming two-way service in the future. Table 2 presents the results of this analysis.

Table 2 shows that the VMT generated by the site would be about 20 percent lower than one would assume using purely ITE Trip Generation Manual-based calculations, which represent typical development seen in most parts of San Joaquin County. The percentages

<b>Table 2 – 2025 MXD Model Estimates of VMT Generated By Cabral Station Area</b>			
	<b>Raw VMT</b>	<b>Net VMT</b>	<b>Reduction Pct.</b>
Daily	57,871	46,355	20%
AM Peak Hour	4,742	3,796	20%
PM Peak Hour	6,139	4,952	19%

Source: Fehr & Peers, 2010.

<b>Table 3 – 2025 MXD Model Estimates of VMT Generated By Cabral Station Area Including Drive Access to Transit Trips</b>			
	<b>Raw VMT</b>	<b>Net VMT</b>	<b>Reduction Pct.</b>
Daily	78,871	48,455	39%
AM Peak Hour	12,092	4,531	63%
PM Peak Hour	13,489	5,687	58%

Source: Fehr & Peers, 2010.

are slightly higher than in table 1; because of the site's proximity to transit, it is the longer trips that get eliminated.

Please note that this analysis does not include the drive access trips to transit, which will vary considerably with the transit services provided. Additional VMT benefits can be estimated by adding the drive access trips to transit to the "Net VMT" and adding the corresponding complete trips to work via auto mode to the "Raw VMT." The number of parking spaces provided represents the number of vehicles that drive and park at Cabral Station, but would drive all the way to work without the presence of the train service. This number of vehicles is multiplied by 50 miles (an assumed average length from Stockton for work trips along the ACE corridor) for Raw VMT, and multiplied by five miles (an assumed average length of the drive from peoples' homes to the station, based on passenger survey results) for Net VMT.

Table 3 presents a revision of Table 2 to include drive access trips to transit, assuming there would be 420 such vehicles, making trips which would be 50 miles on average without the train station, but only 5 miles on average with the train station. Table 3 also assumes 35 percent of the trips will be in the peak hours.

Table 3 shows that the presence of Cabral Station, along with the planned land uses, would result in a substantially lower VMT generated for the area, using a reasonable set of assumptions about average trip lengths based on past experience and ACE passenger survey results. The Table 3 percentages are to be interpreted as the reductions experienced compared to a situation where there is no interaction between site uses and there is no train station present at all. If one is interested in solely the effects of the land use surrounding the station, Table 2 contains the appropriate set of results.

Altamont Commuter Express I Planning and Parking Strategy : Cabral Station



# Site Analysis

Opportunities + Constraints

04

## 4.0 Site Analysis + Opportunities & Constraints Recommendations

1. Work with local agencies to create optimal transit connectivity to the ACE Cabral Station. (Source [4.3.3 and 4.3.4] “Site Analysis Opportunities + Constraints” Gensler, 2010).
2. Create an advisory committee and action plan to identify and target partnerships for mixed use parking structure. This would include developers and final lease holders. (Source [4.3.3 and 4.4.0] “Site Analysis Opportunities + Constraints” Gensler, 2010).
3. Take advantage of depressed land values due to current economic environments to acquire land for land banking purposes. (Source: [5.3.1] “Planning Goals and Objectives” Gensler 2010).
4. Update zoning and development standards, to ensure that non-TOD compatible land uses are not developed on sites in close proximity to Cabral Station, with a particular focus on updating IL zoning in the area. (Source: [5.2.3] “Planning Goals and Objectives” Gensler 2010).

### 4.1 Site Analysis + Opportunities & Constraints

“The potential benefits of Transit Oriented Development (TOD) are social, environmental, and fiscal. Focusing growth around transit stations capitalizes on expensive public investments in transit by producing local and regional benefits. TOD, proponents believe, can be an effective tool in curbing sprawl, reducing traffic congestion, and expanding housing choices.”

Source: Page S-6, “Transit Oriented Development in the United States: Experiences Challenges and Prospects” 2004; Robert Cervero, Transit Cooperative Research Program (Report # 102).

The purpose of a site analysis is to develop a coherent understanding of the issues impacting the proposed site of the ACE Mixed-Use Parking Garage north of the Robert J. Cabral Station in Stockton, and is intended to inform decision making and ensure urban design that is responsive to the local environment and a positive agent within the community.

## 4.1.1 ACE in Stockton

This section briefly describes the context of ACE in Stockton and establishes the background to this study.

### Connecting the San Joaquin Valley: ACE as a seed for urban regeneration in Stockton.

ACE began services between Stockton and San Jose in 1998 after almost a decade of voter-backed pre-planning and advocacy. Since the first train destined for San Jose departed Stockton, ACE has provided regular commuter rail transportation between these cities and stops between. Timetables and train frequency have been adjusted periodically to meet demand for service.





Today, ACE is an established transit alternative that is increasingly integrated into regional transit and transportation planning. Further, increases in service and connectivity are being studied by ACE and other transportation agencies, and they will ultimately increase the attractiveness of ACE as a transit alternative. Improvements being studied include;

- Service improvements: in which train frequency, speeds, and operations over current routes are improved by 30 percent. (Source: P2, “ACE Corridor Analysis Study,” HDR, 2007).
- Service Expansion: in which ACE expands its route map to increase connectivity and service area to Modesto/Merced.
- Greater Service Connectivity: in which timetables and routes are coordinated with other transit agencies, particularly BART and Capital Corridor shuttle services. (Source: P5. “ACE Corridor Analysis Study.” HDR, 2007).
- California High Speed Rail: currently being studied by the California High Speed Rail Authority.

These actions will increase ACE's connectivity with the regional transit networks in the San Joaquin Valley, and they will ultimately enhance the success of ACE as a catalyzing influence for transit oriented development in Stockton. Traditionally, the better connected and more well-served a station, the more effective it is as an agent for redevelopment.



**Catalyzing Development:** Robert J. Cabral Station as a seed for regeneration.

Named after a San Joaquin County Supervisor in 2003, the Robert J. Cabral Station was originally constructed in 1930 for the Southern Pacific Railroad. The station has been restored using funds from the San Joaquin Regional Rail Commission (SJRRC), and is envisaged as the anchor for revitalization of the east downtown of Stockton.

**Integrating Urban Improvements:** The Robert J. Cabral Station Neighborhood Plan.

During 2006, the SJRRC adopted the Robert J. Cabral Station Neighborhood: A Plan for Revitalizing East Downtown Stockton. This document established a Masterplan for approximately a twenty-two block area predominately west of the Robert J. Cabral Station. This document, created through a public participation process, established a series of strategic design improvements generated in direct response to perceived issues in the neighborhood, and outlined design types for streets and buildings, overall implementation phasing, and funding sources.



Four Guiding Principles were developed to frame enhancement of the public realm west of the Robert J. Cabral Station, these being:

1. Improve Visual and Physical Connections between Downtown and Cabral Station.
2. Restore Miner Avenue and Weber Avenue as “Streets of Significance” in the Downtown.
3. Enhance Primary East-West Streets for Residential Addresses.
4. Locate Neighborhood-Serving Retail Nodes in Commercially Viable Areas. (Source: Page 3-1, “Robert J. Cabral Station Neighborhood Revitalization Plan” 2006; Opticos).

ACE and the City of Stockton are working corroboratively to bring Phase 1 recommendations from this report to fruition, with current activities focusing on the construction of the Cabral Station Square, which is nearing completion and will provide a valuable fore court to the station and neighborhood amenity.



CABRAL STATION RENOVATION CONCEPTUAL RENDERING

At the time this document was prepared, a more incremental approach to change, as described by the Robert J. Cabral Station Neighborhood: A Plan for Revitalizing East Downtown Stockton, was consistent with the development environment of Stockton, and the future of ACE.

### **Servicing ACE: Future Maintenance Facility**

Construction on the new ACE Maintenance and Layover Facility will commence in late 2010, and will enable ACE to perform railcar repairs faster, increase equipment availability, and decrease unproductive and time-consuming switching of equipment across Union Pacific Railroad (UPRR) tracks. It will be located approximately 1.6-miles north of the Robert J. Cabral Station on a 73.3-acre site. When operational, the Maintenance Facility will also feature an extension of the ACE rail line north from the Robert J. Cabral Station and solidify Stockton as the anchoring city to the ACE service.

ACE is demonstrating its role as both a service and job provider in the community. It may be possible to incorporate employee services into the future parking structure as another means of building community around ACE.

### **Expanding the Role of ACE: Change in Stockton**

Since the time of adoption of the Robert J. Cabral Station Neighborhood: A Plan for Revitalizing East Downtown Stockton, the mortgage backed securities and banking crises have negatively impacted the California (and Stockton) markets. Yet, two recent federal initiatives have the capacity to significantly increase the role that ACE plays in the future of Stockton.

The first initiative was unveiled in June 2009. The Department of Transportation (DOT), Housing and Urban Development (HUD), and, the Environmental Protection Agency (EPA) announced an interagency "Partnership for Sustainable Communities." This initiative has led to change in federal funding criteria for transit by inserting the creation of livable and sustainable communities into the criteria of eligibility. The Federal Transit Authority (FTA), in collaboration with the DOT, is now empowered to assist communities to:

- Better integrate transportation and land use planning.
- Foster multimodal transportation systems and effective multimodal connections.
- Provide more transportation options to improve access to housing, jobs, businesses, services and social activities.
- Increase public participation and enhance coordination of transportation and housing and healthy communities.
- Reduce emissions.
- Plan for unique needs.

Source: [http://fta.dot.gov/publications\\_10935.html](http://fta.dot.gov/publications_10935.html)

The second initiative was related to High Speed Rail. Released in February 2010, the California High Speed Rail Authority (CHSRA) has been approved for \$2.25 billion in funding from the American Recovery and Reinvestment Act to connect Southern California with the San Francisco Bay Area. This funding will potentially elevate the long process of bringing high speed rail in California to reality.

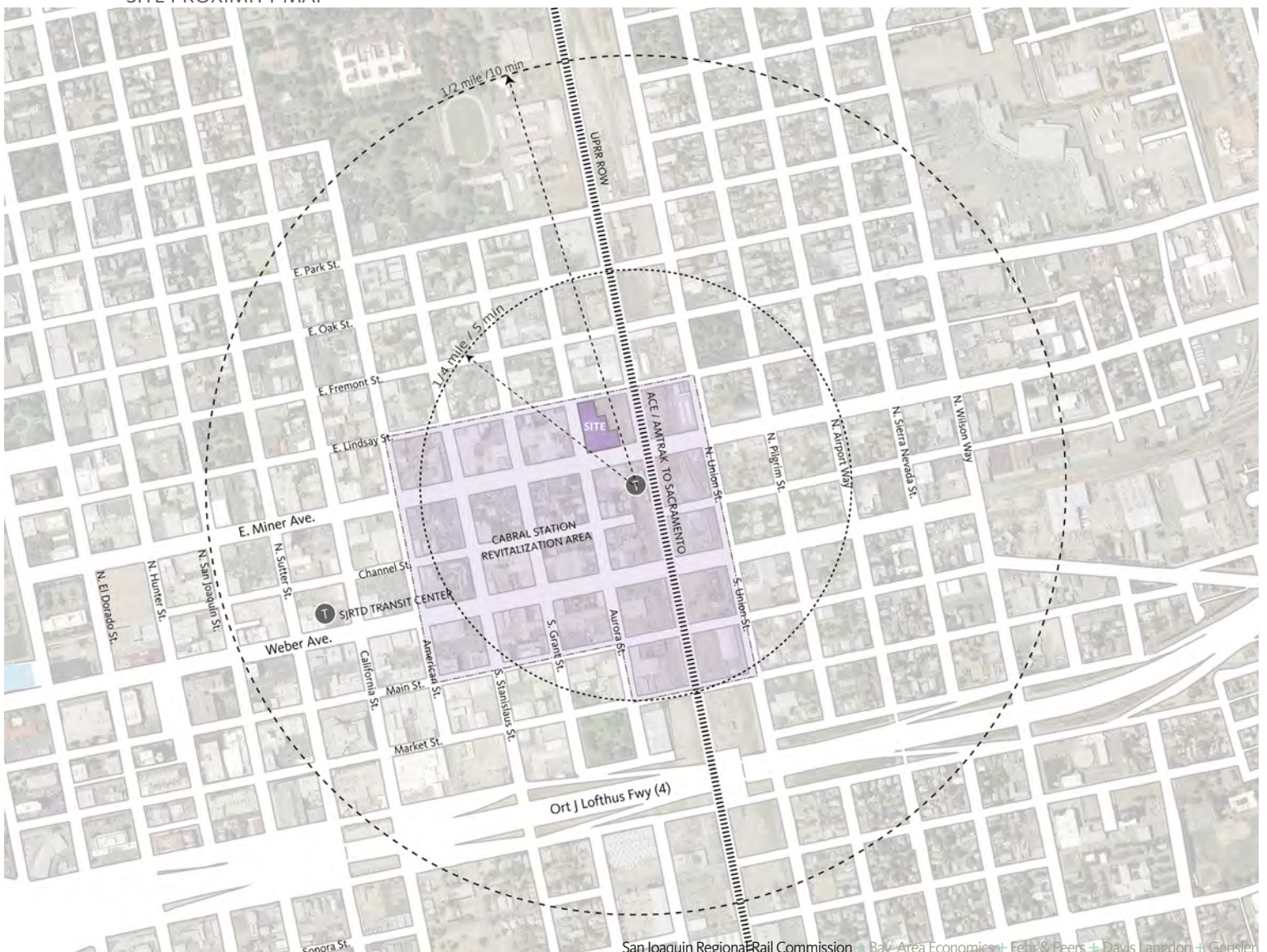
The opportunity exists to develop a Station Area Plan, similar to those prepared on behalf of Bay Area Rapid Transit (BART) or the Santa Clara Valley Transit Authority (VTA) in the San Francisco Bay Area, as a mechanism for expanding the influence of the Robert J. Cabral Station Neighborhood: A Plan for Revitalizing East Downtown Stockton and outlining a more broad-ranging future for the neighborhoods surrounding the current ACE terminus.

Typically, transit-based planning adopts a 1/2-mile (or approximately 10-minute) walk radius from each station as an acceptable study area, which is illustrated below. Significantly, the walk time from the Robert J. Cabral Station to the Stockton Waterfront along East Miner Avenue, Channel Street, or Weber Avenue is about three quarter mile or roughly fifteen minutes.

In support of this idea, BAE in their research findings recommended the following in their review of the current zoning controls. "It will be important for SJRRC and the City of Stockton to work together to ensure that the land use regulations in the area will support this type of development pattern over the long-term, and incompatible development in the short-term will not foreclose valuable TOD opportunities. SJRRC should continue to advocate for the City of Stockton to implement land use regulations and development codes that are consistent with the vision of the Cabral Station Neighborhood Revitalization Plan. Specifically land use controls should be considered to discourage development of new, low-intensity, non transit-friendly uses in close proximity to the transit station."

Source: [2.4.4] "Cabral Station TOD Market Opportunities Report" 2010; BAE.

SITE PROXIMITY MAP



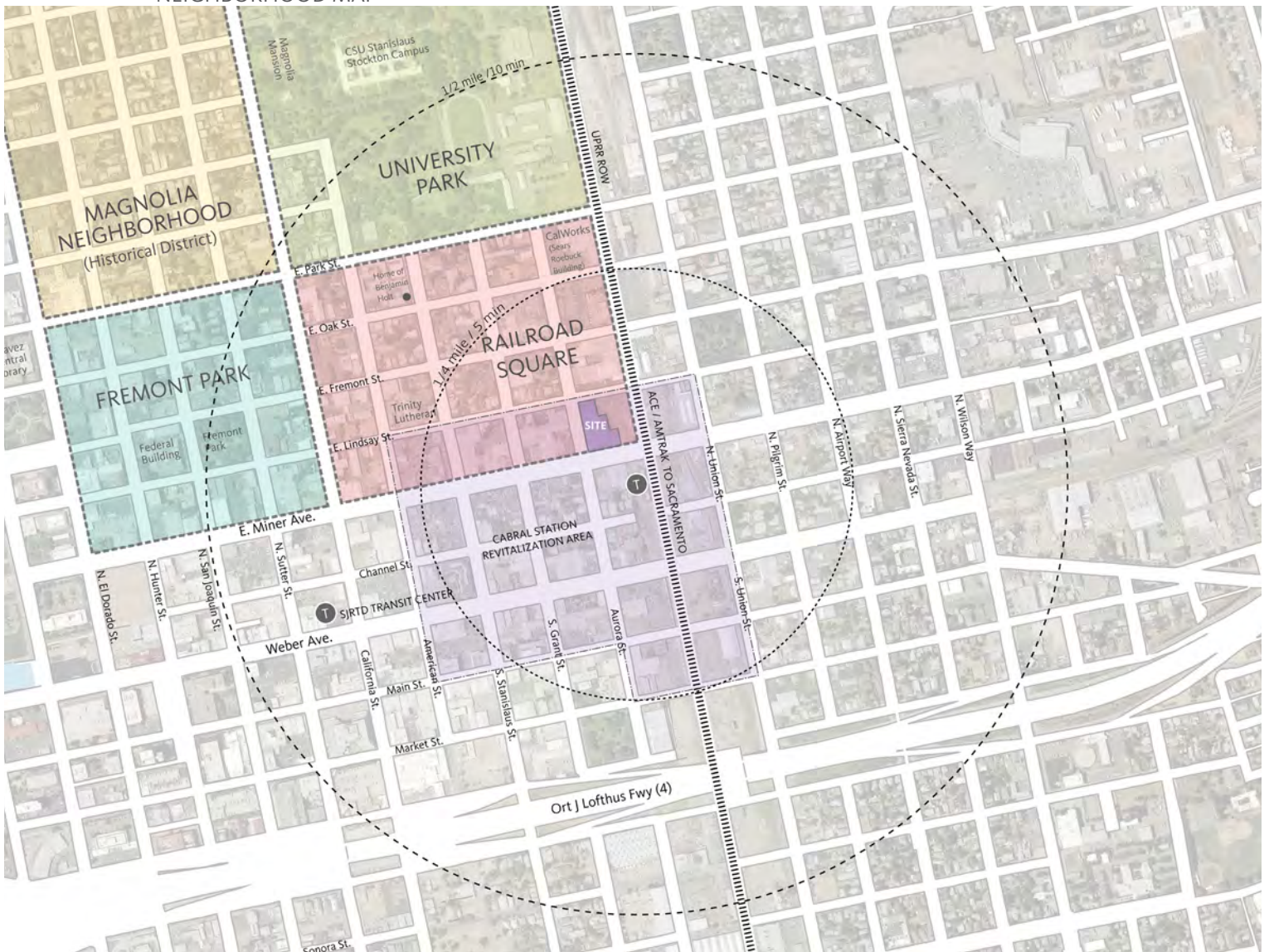
## 4.2 Site Context

This section describes the context of the site for the Mixed-Use Parking Garage Study, within approximately half mile or a ten minute walk.

### 4.2.1 Adjacent Neighborhoods

The site is located at the eastern edge of the Midtown District, a community which contains four distinct neighborhoods—Magnolia, University Park, Fremont Park, and Railroad Square. The Midtown District creates a link between the downtown core, Miracle Mile, CSUS campus, and the job centers and residential neighborhoods to the south and east.

NEIGHBORHOOD MAP



- **Magnolia Historic Neighborhood:** A designated historical district by the City of Stockton and the State of California of mostly single and multi-family homes.
- **Fremont Park Neighborhood:** A neighborhood with a mix of residential and commercial buildings along with numerous churches bordering the central business district.
- **University Park Neighborhood:** Home to California State University Stanislaus- Stockton, the neighborhood includes 500,000 square feet of office space, 60,000 square feet of retail, and 200+ residential units. There is also an elementary school and high school, providing the full K-16 educational experience.
- **Cabral Station Neighborhood Revitalization Area:** This neighborhood includes a mix of older residences and commercial and industrial space and is in walking distance to the regional transportation center in downtown Stockton.



MAGNOLIA HISTORIC NEIGHBORHOOD



FREMONT PARK NEIGHBORHOOD



UNIVERSITY PARK NEIGHBORHOOD



CABRAL STATION NEIGHBORHOOD REVITALIZATION AREA

The Midtown District has a rich heritage and is culturally embedded in the history of Stockton. Conceived in the height of glamour and progress, the area is home to historically diverse architecture and mature vegetation. This area has some tremendous assets, including: accessibility, proximity, strength in character, resident and commercial vitality, and mixed-use zoning. Unfortunately, the strong character of the area has been lessened by increases in crime, building and infrastructure deterioration, and poor circulation.

Stockton's quick departure from an urban environment has led to large developments of low density housing—which continue to push the city boundaries in all directions. Framing our site to the east and south are various neighborhoods (i.e. Waterloo, Gleason Park, Fair Oaks) that include low density residential and some commercial and industrial uses. BAE, in their primary and secondary research summarizes the neighborhoods completeness as follows;

*“...serving local residents, there is Constitution Park and Fremont Park and the Caesar Chavez Central Library. There is a limited amount of services within the easily walkable, neighborhood scale of one half mile. The presence of an elementary school, parks, and discount grocery stores in close proximity represent neighborhood strengths, however, to make the neighborhood successful and attractive for TOD over the long-term, there should be an emphasis on attracting additional convenience retail, along with a range of restaurants and everyday services within easy walking distance.”*

Source: [2.1.5] “Cabral Station TOD Market Opportunities Report” 2010; BAE.

In their research into the previously described neighborhoods, BAE characterized the amenities as the following, “The neighborhoods of the Midtown District are sufficiently diverse with elements that begin to make up a complete neighborhood. Neighborhood parks and open space, schools, and other neighborhood services are available, although some areas require increased attention. While the neighborhood of Central Stockton have maintained their core critical services and amenities the profile of the individuals living in these neighbor has changed. By 2009, Central Stockton had experienced a major shift, with a decrease in the percentage of Whites to twenty one percent, and an increase in Hispanic or Latino, to fifty two percent.”

Source: [2.2.1] “Cabral Station TOD Market Opportunities Report” 2010; BAE.

## 4.2.2 Neighborhood Conditions

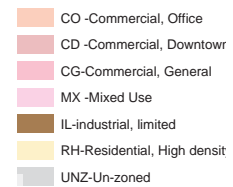
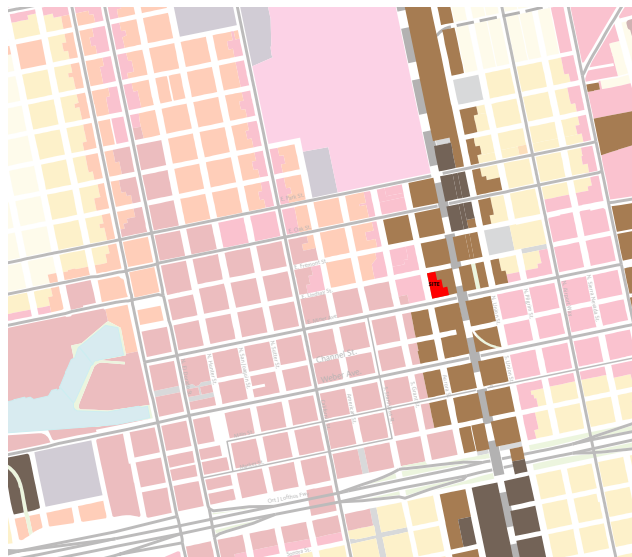
There is a high level of variation in the neighborhoods surrounding the project site. Some areas are seeing improvement while others are in decline.

The neighborhoods near the Robert J. Cabral Station are consistent with their location near major transportation and freight infrastructure, and reflect the erosion of business and social success as Stockton has added new housing stock on its periphery. However, this area has a strong platform for redevelopment, as there are significant structures of architectural and historic significance, and a coherent street grid that alludes to earlier success of these neighborhoods as prime residential districts near the station. The area surrounding the Robert J. Cabral Station lacks basic community services, and it is in need of redevelopment.

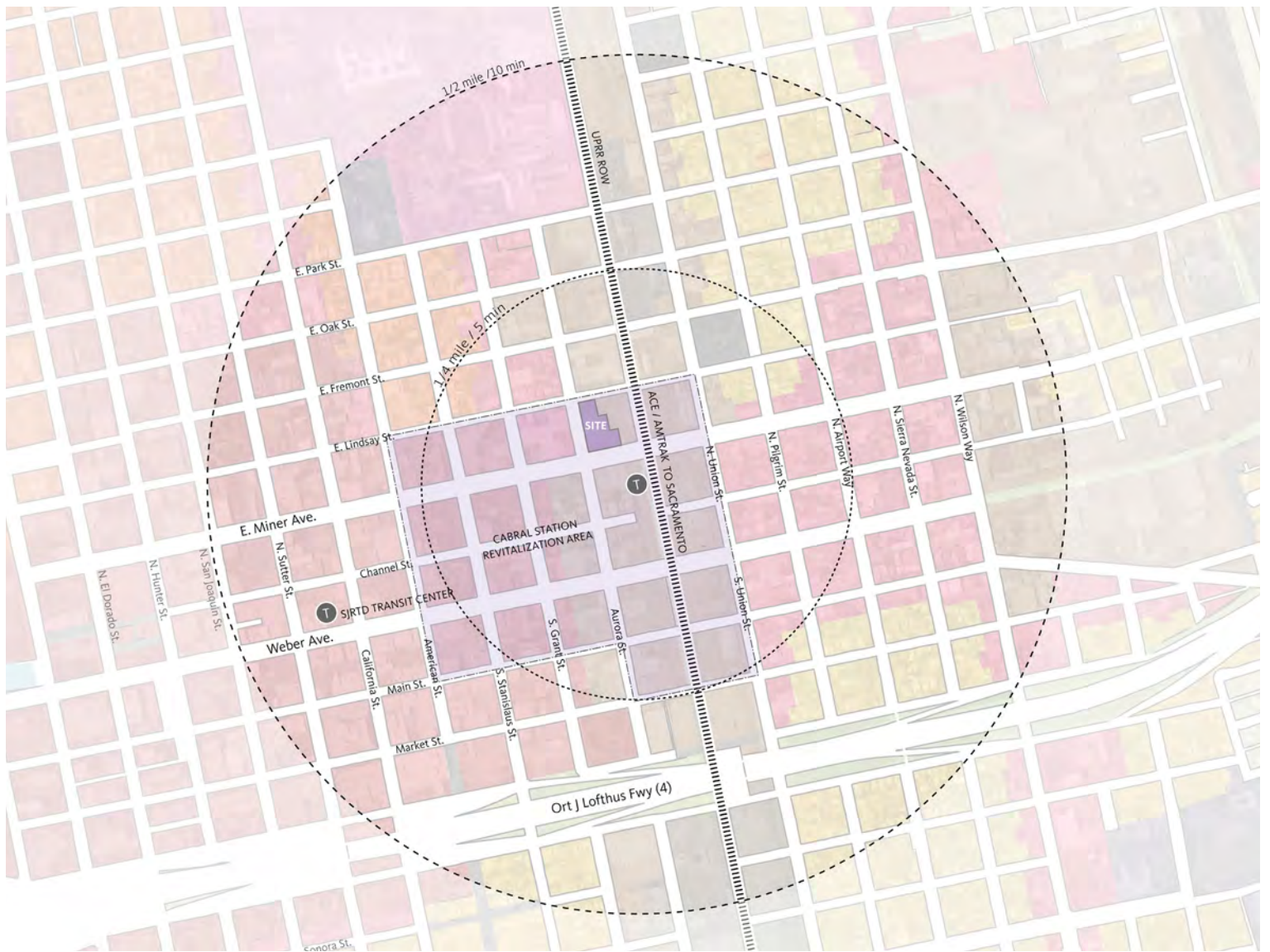
There are various redevelopment plans and efforts that are looking at ways to increase the life and presence of the greater downtown area. These plans seek a densification of the downtown area, with a mix of uses and a strong public transportation presence with hopes of reestablishing a city center.

## 4.2.3 Neighborhood Land Use

The rail corridors through Stockton are predominantly abutted by lands zoned as Industrial. This zoning reflects prior connections between industrial businesses and transportation. This zoning presents both opportunity and constraint for ACE and SJRRC.







SITE PROXIMITY MAP

**Constraints:**

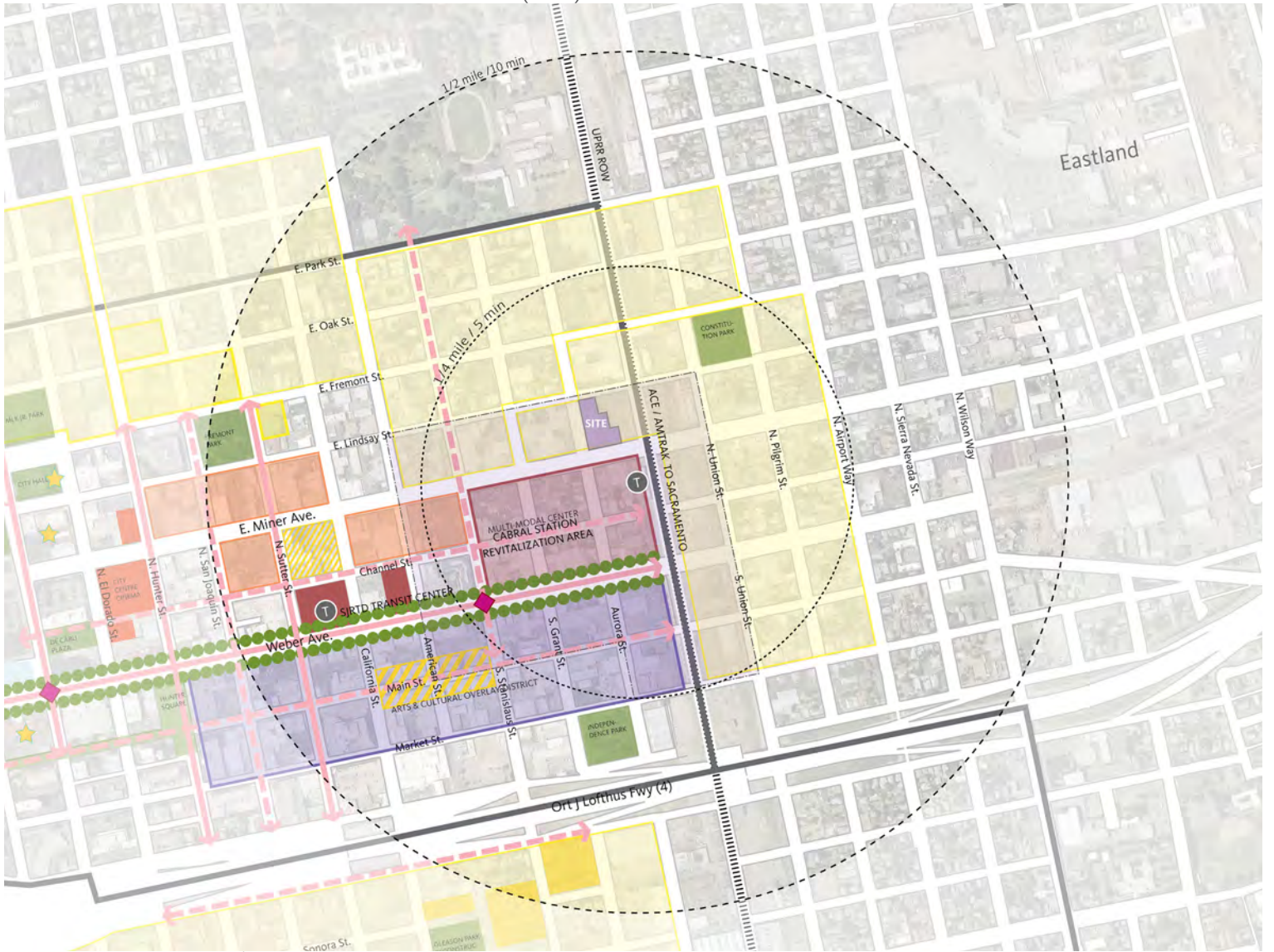
- The current City of Stockton 2025 General Plan has zoning classification and land use intensities consistent with current TOD best practices. The conflicts are in the following areas: IL, Industrial Limited zoning classification adjacent to rail alignment zoning; no mixed use zoning; limited zoning in residential Dwelling Unit density; and low FAR for commercial uses.

# 04

## Site Analysis + Opportunities & Constraints

- Primary Pedestrian Circulation
- - - Secondary Pedestrian Circulation
- Multi-Modal Center
- Arts & Cultural Overlay District
- ◆ Entry Feature
- ★ Major Catalyst Projects
- Private Office Project
- Restaurant/Retail Project
- Residential Project
- ▨ Mixed-Use Housing
- ▨ Live-Work Housing
- Infill Housing District

DOWNTOWN REDEVELOPMENT PLAN (2006)



## 4.2.4 Downtown Stockton Strategic Action Plan

The Downtown Stockton Strategic Action Plan was completed during 2006, and is functioning as a guiding document toward the regeneration of downtown Stockton. Goals established in the plan are grouped by the following categories:

- Housing: Workforce and Market-Rate
- Restaurant/Retail, Arts and Entertainment
- Office
- Safety and Security
- Transportation, Circulation and Parking
- Community Design
- Regulatory Framework
- Downtown Identity and Marketing
- Practical Historic Preservation Program
- Adequate Infrastructure
- Organizational Development

Source: "Downtown Stockton Strategic Action Plan" 2006; MIG.

The Downtown Stockton Strategic Action Plan establishes the Robert J. Cabral Station at the eastern boundary of Stockton's downtown, and details the strategic importance of the Downtown Transit Station, which is located at the midpoint between the Stockton Waterfront and the Robert J. Cabral Station. Transportation Strategy E19 states: "Continue to support Downtown Trolley lines connecting the waterfront through Downtown to the train stations." This strategy will provide potential future connectivity between ACE and downtown.

The Downtown Stockton Strategic Action Plan recommends that blocks west of the current rail corridor right of way become largely residential in nature, with the six-block area west of the station between East Miner and Weber Avenues being a Multi-modal center.

At the time this document was prepared, the potential impact of High Speed Rail (HSR) and the impact of the banking crisis were beyond the horizon, and hence not considered. The document also established the Robert J. Cabral Station as an eastern boundary to downtown, which has been the historic case, however, ACE may be a 'bridge' between east and west sides of the tracks. The residential area east of the rail tracks, from North Union to North Wilson Streets is 4-blocks deep and is bounded to the east by Industrial Land Uses. This area would benefit from greater integration with downtown, and with residential neighborhoods north and south, is loosely defined by the Mid-Town Stockton Redevelopment Area.

## 4.2.5 Open Space Connections

There are three parks within a ten minute walk of the Robert J. Cabral Station and occupy approximately 6.2-acres or 1.23 percent of that area, and serve a population of about 15,100 people.

Source: [2.2.1] "Cabral Station TOD Market Opportunities Report" 2010; BAE

These parks provide an average neighborhood open space area of 0.5 acres per 1,000 residents. Additionally, University Park provides significant open space on campus to adjoining neighborhoods, as well as the Stockton Waterfront, which is a regionally significant open space destination for the metropolitan region and focus of significant community programs. These parks significantly increase the open space per 1,000 residents to approximately 3.0 acres. In comparison, waterfront industrial cities such as Baltimore (7.8 acres / 1,000 residents), Philadelphia (7.0 acres / 1,000 residents) and Long Beach (6.2 acres / 1,000 residents) provide greater levels of access to open space.

Source: [http://www.oasisnyc.net/resources/city\\_comparison/Park\\_1000\\_res.asp](http://www.oasisnyc.net/resources/city_comparison/Park_1000_res.asp)

The National Recreation and Parks Association (NRPA) recommends a range between 6.25 and 10.5 acres of total open space per every 1,000 residents and further refines these recommendations according to different types of open space, particularly active and passive open space.

Source: <http://www.nrpa.org/>

These figures suggest that the eastern downtown area of Stockton is underserved with open space, and this situation will be exacerbated by population growth downtown as the area is redeveloped.

### Constraints:

- Lack of publicly owned lands to increase provision of open space in support of regeneration of east Stockton.
- Access to funding or other mechanisms to promote establishment of new open spaces in east Stockton downtown.

### Actions:

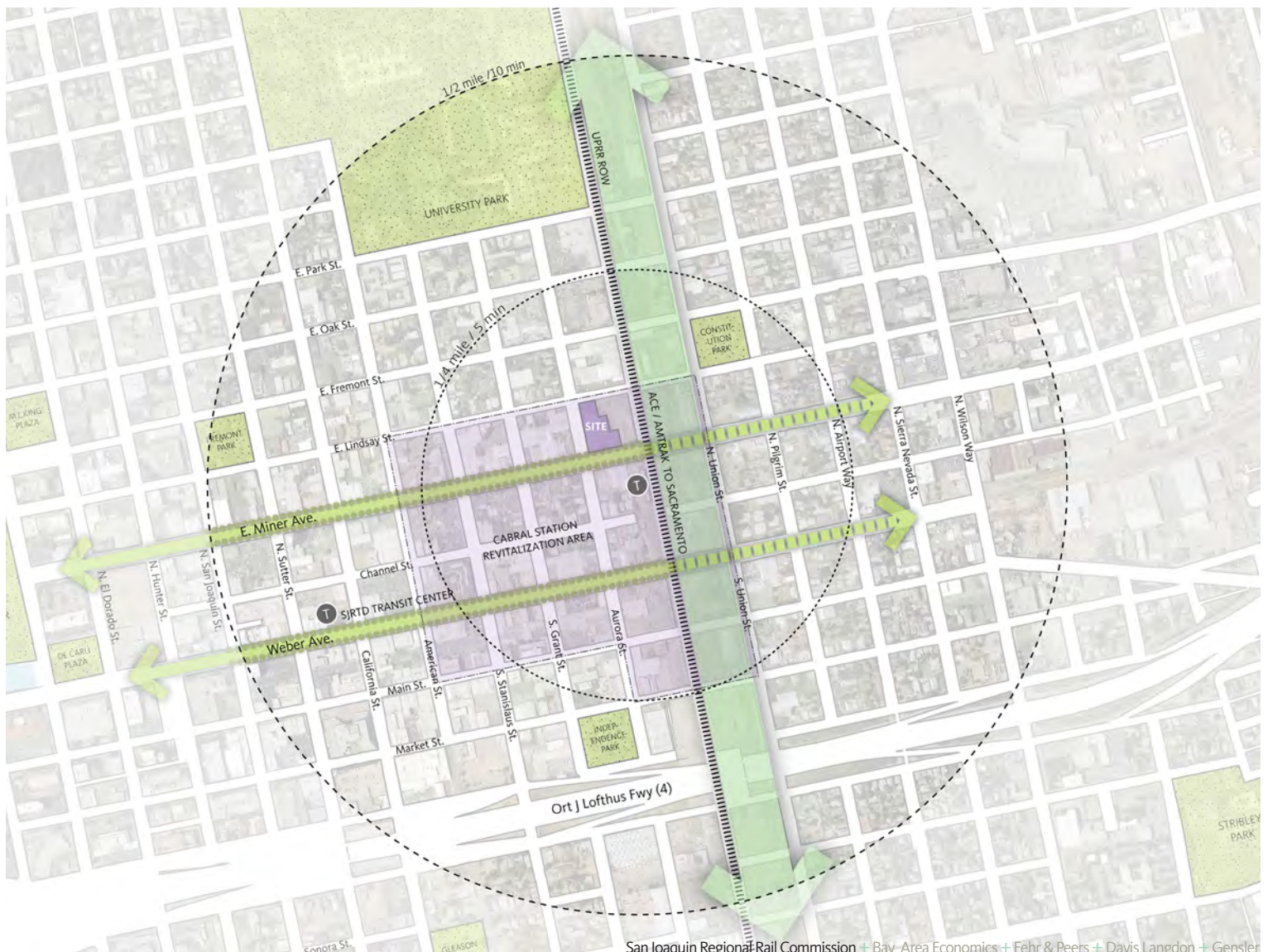
- Seek opportunities to partner with the City of Stockton to increase the supply of open space to the neighborhood
- Potential Soft sites (also see section 4.2.6) may be converted to open space
- Potential soft sites may be leased or donated on an interim basis to Community Supported Agriculture (CSA) organizations in a manner similar to use of vacant sites in Detroit by Maple Creek Farm.

Source: <http://www.maplecreekfarm.com/index.html>



OPEN SPACE DIAGRAM

- Existing Parks & Open Space
- Planned Street Greening
- Potential Street Greening Extension
- Potential Regional Open Space Connection



## 4.2.6 Potential Soft Sites

The sites described in this diagram are potential soft sites, or those that are underutilized in terms of land coverage or building occupation. Soft sites correspond to Industrial Limited zoning along UPRR right of right and are an indicator of the removal of earlier urban structures, most usually to provide off-street surface parking for small businesses. Soft sites also indicate sites where buildings have fallen into disrepair for various reasons.

Soft sites provide an opportunity for ACE and SJRRC to acquire them to protect future rail right-of-way expansion potential and expansion of support services in the community such as parking or offices and other uses that support the success of both. These soft sites may also provide an opportunity to actively enter into public / private development partnerships for projects necessary to the ongoing well-being of ACE and the City of Stockton.

### **Constraints:**

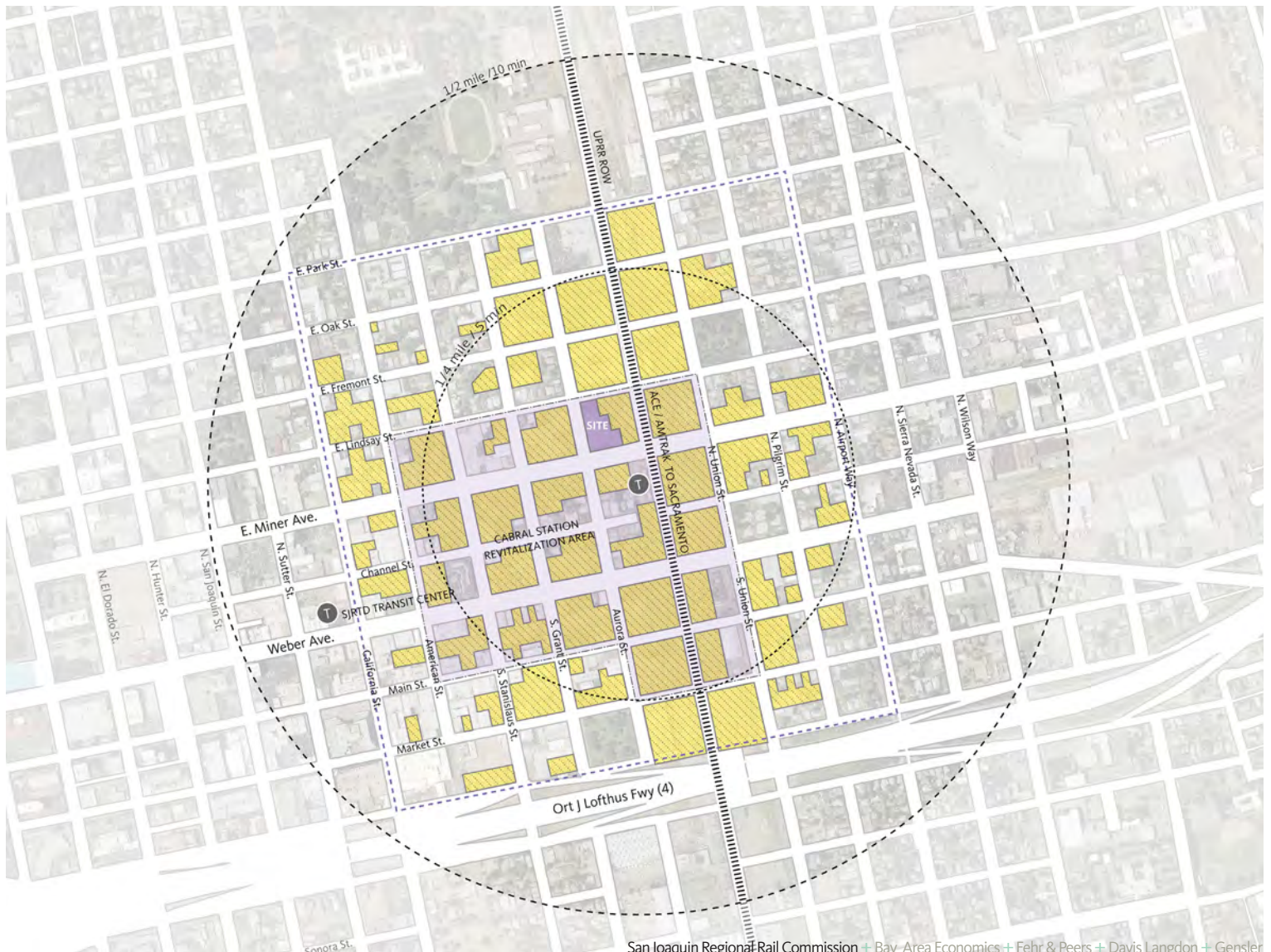
- Ownership of soft sites was not studied as part of this document, and it may be difficult to assemble large enough parcels to suit contemporary development patterns for re-use.
- Some parcels appear to be managed by absentee landlords, and the acquisition process may be difficult.

### **Actions:**

- Develop a more complete review of soft sites in collaboration with the City of Stockton and the Redevelopment Agency to identify key sites for acquisition for public service and open space improvements.
- Work with CHSRA to identify potential HSR alignment issues, and develop a strategy for protecting the right-of-way.
- Work with surrounding community groups to identify appropriate interim uses for acquired properties that promote community and improve the image of East Stockton downtown.



POTENTIAL SOFT SITES DIAGRAM



## 4.3 Site Analysis

This section describes the initial site of study for a potential mixed-use parking garage to serve ACE and the Robert J. Cabral Station. The site was identified in the Robert J. Cabral Station Neighborhood: A Plan for Revitalizing East Downtown Stockton as location for potential future ACE Train Parking. Where potential actions are identified, these are identified within each sub-section of the following analysis of the site of study.

### 4.3.1 Site Description

The site for initial study is located northwest of the Robert J. Cabral Station, and is bounded by East Miner Avenue to the south, Aurora Street to the west, and Lindsay Street to the north. The site, approximately 50,000 square feet (1.15-acres), consists of six (6) parcels, and as a consequence, has an irregularly shaped eastern boundary. The site is currently occupied by a series of single-story light industrial structures, and back yards are used for surface storage.

#### **Constraints:**

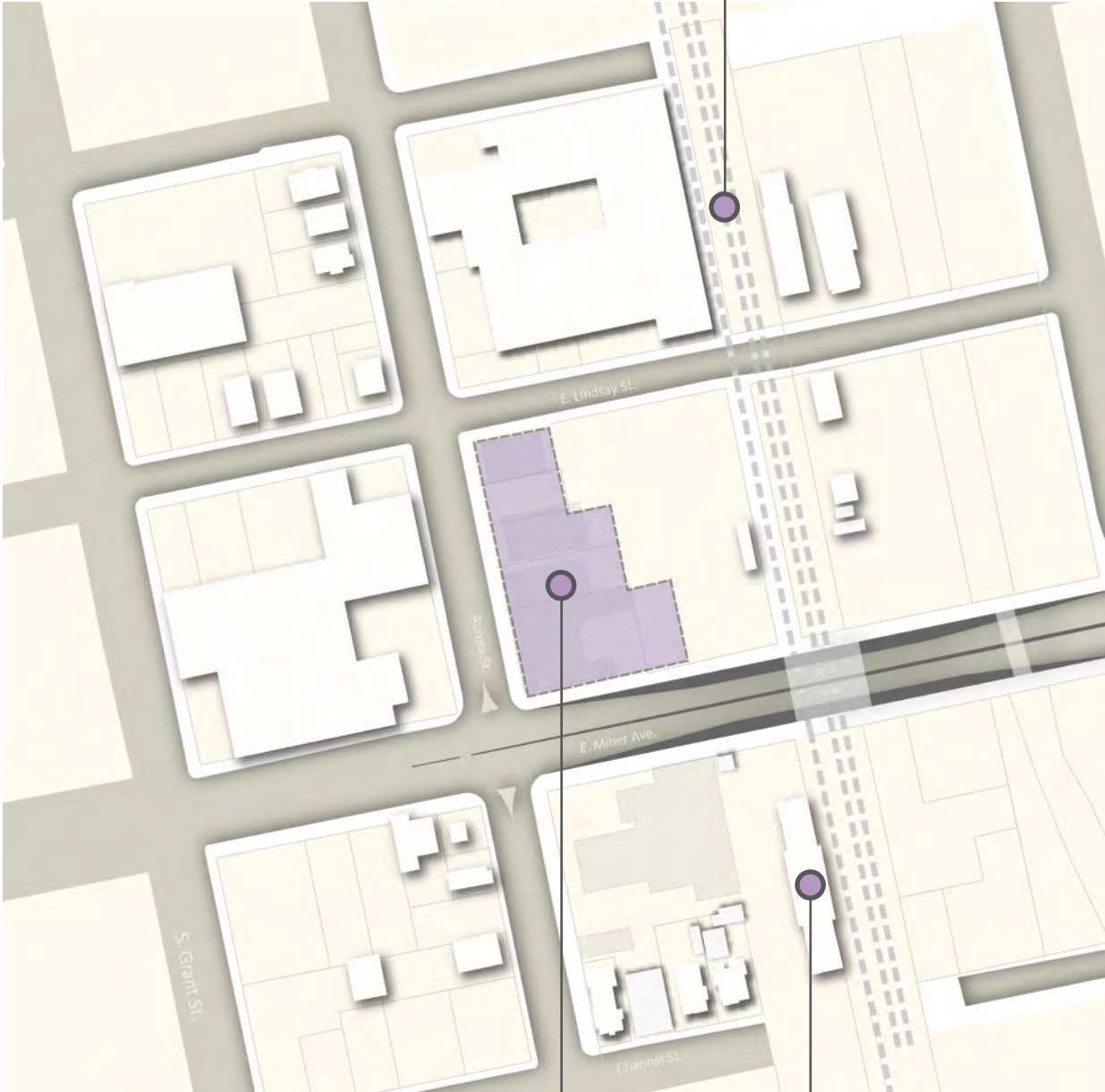
- The properties under study are not under the ownership of ACE or SJRRC, and will require purchase.
- Existing structures on the properties will require demolition in order to facilitate any form of parking.
- The age of the structures suggests they may be constructed of materials now banned in California, and a hazardous material survey may be needed to confirm demolition methods comply with California law.
- Use by one of the existing structures as a car repair shop may have resulted in some contamination, and environmental studies may need to be completed prior to demolition.
- There is an existing residential dwelling on the site that may be of historic value.

#### **Actions:**

- Ownership of the parcels was not investigated as part of this study. Any assembly strategy for this site will require a title search to confirm ownership and identify appropriate parties for negotiation. Independent valuations will also be required to develop acquisition budget and anticipated pricing.



SITE VICINITY MAP



Project Site

ACE Station

### 4.3.2 Site Access : Vehicular

Vehicular access to the site is limited by grade separation of East Miner Avenue as it underpasses railroad right of ways above. Vehicle movement patterns are further restricted at the intersection of East Miner Avenue and Aurora Street to maintain efficient vehicular traffic flows.

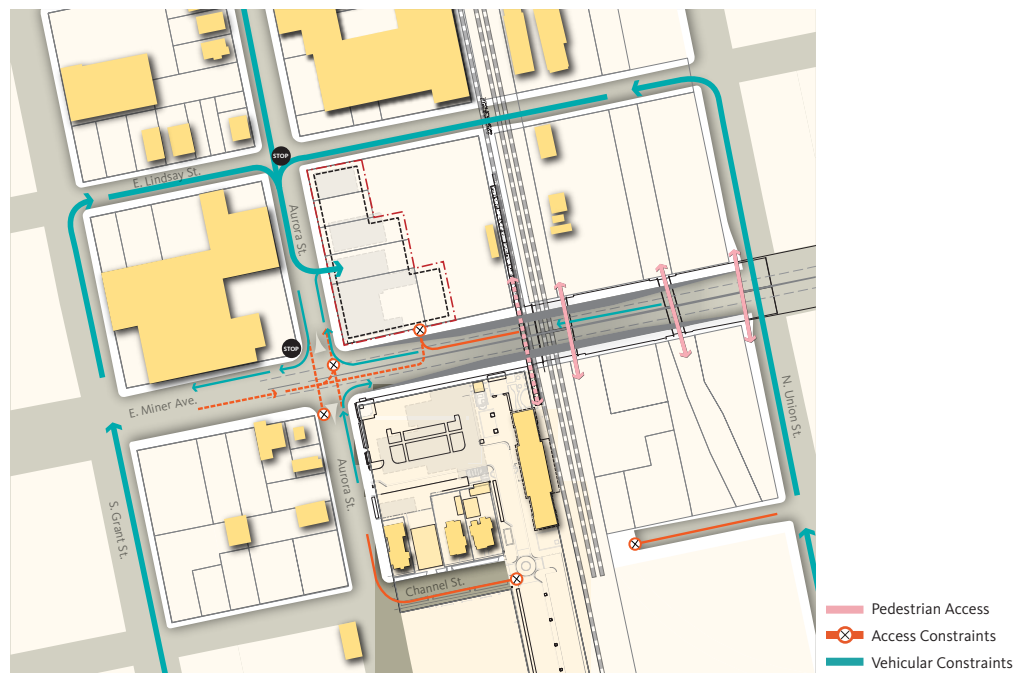
Primary vehicular access to the site will rely on Lindsay Street to the north; however, owing to the site dimensions and potential configuration of parking garage structures, primary access and egress will best be accomplished mid-block on Aurora Street.

#### Constraint:

- Circulation patterns to the site are limited owing to the grading of the underpass on East Miner Avenue and restricted traffic movements at the intersection with Aurora Street. These patterns may have the effect of forcing traffic using the garage into surrounding residential neighborhoods.

#### Actions:

- Confirmation of this site may require further traffic studies to confirm that local streets have sufficient capacity to accommodate increased traffic loads as part of the approvals process with the City of Stockton, should construction be warranted.



### 4.3.3 Site Access : Pedestrian

Currently, pedestrian access to the perimeter of the site is available on sidewalks and landscape strips adjacent to surrounding streets. Where they exist, the condition of these sidewalks shows signs of damage and settlement, and they will require repair or replacement in order to improve pedestrian access to the perimeter of the site.

The sidewalk on the southern side of East Miner Avenue is grade separated from both the driving lanes and the site grades as it underpasses the railroad right of ways and has limited capacity to enhance pedestrian access between the site and the station. There is no pedestrian access along the northern side of East Miner Avenue.

Currently, on-grade access from the site to Robert J. Cabral Station is achievable at the intersection of East Miner Avenue and Aurora Street, providing an access distance of approximately 450 feet to the Station entrance. ACE is planning a northern rail extension to a service and repair facility that will extend the current platform as a pedestrian route across East Miner Avenue. This will provide access to the site that does not require any crossings of streets at grade.

The site is within walking and biking distance of Stockton's central business district.

#### **Constraints:**

- Pedestrian circulation patterns to the site are limited owing to the grading of the underpass on East Miner Avenue.

#### **Actions:**

- In order to ensure the effectiveness of the proposed pedestrian connection at rail level between the Robert J. Cabral Station and the site, an access easement or additional land purchase will potentially be required to commit separated pedestrian access from the site to the station entrance and platform.
- Development of this parcel should not occur until the rail extension north to the maintenance facility and attached pedestrian access are constructed to avoid pedestrian vehicular conflicts at the intersection of Aurora Street and East Miner Avenue.

### 4.3.4 Site Access : Transit

East Miner Avenue serves as one of the major transit corridors for City of Stockton and is the main connection from the site to Stockton's central downtown and waterfront. Six San Joaquin Regional Transit lines pass through the site. The closest bus stops are about 0.3 miles away from the site.

Source: [http://sanjoaquinrtd.com/maps\\_and\\_schedules/system\\_mapDay.php](http://sanjoaquinrtd.com/maps_and_schedules/system_mapDay.php)

The Metro Express Bus Rapid Transit (BRT) services Stockton every 15 minutes during weekday peak times and every 30 minutes on weeknights, weekends, and holidays. A proposed BRT to run on Weber and Miner Streets will improve connections between Robert J. Cabral Station and downtown Waterfront District.

Additional bus stops near Robert J. Cabral Station and the project site may better connect the Cabral Station Neighborhood with the larger Stockton metropolitan area and potentially increase the ridership at the multi-modal station. Additionally, making the potential parking structure available to users other than rail passengers may increase its viability.

**Constraint:**

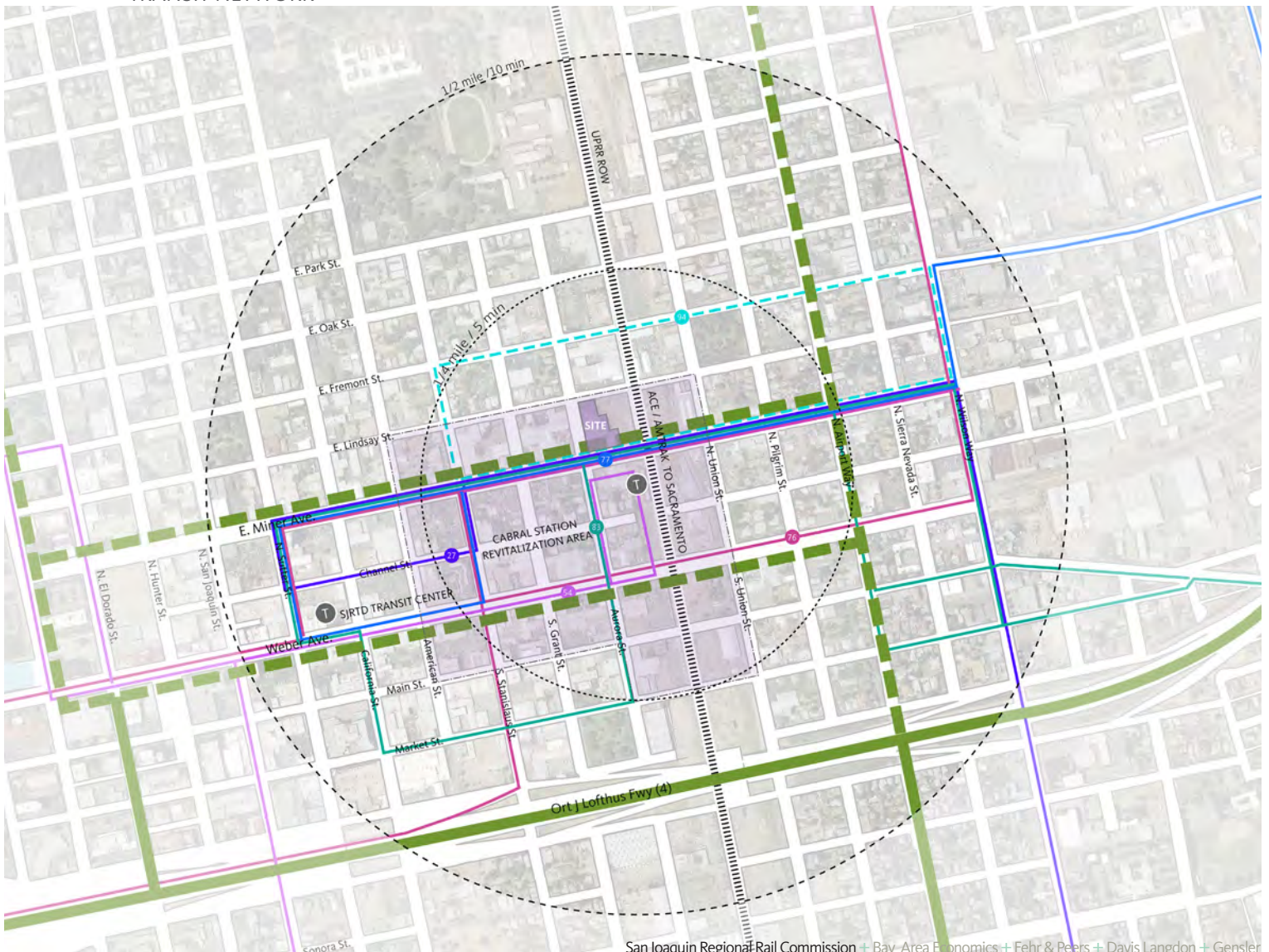
- While local connectivity increases availability of transit for the existing population, regional connectivity is vital to the resurgence of Downtown Stockton. Future increases in connectivity will be desirable.

**Actions:**

- Review process of adding a designated Robert J. Cabral bus stop on East Miner Avenue, including potential bus routing into the station plaza area to correspond with train arrivals and departures when demand rises as a long term outcome of potential population growth in Downtown Stockton.
- In the interim, as and when demand rises (largely anticipated following construction of HSR links to Stockton), transit linkages may be increased through associations with shuttle van service providers. These may be modeled on shuttle operations found at the Great America ACE station.



TRANSIT NETWORK



## 4.3.5 Site Access : Bicycle Network

In November of 2007, the City of Stockton adopted the City of Stockton Bicycle Master Plan. The document is a comprehensive strategy and implementation plan for the city, providing the groundwork for a more substantial commitment to cycling as a viable mode of transportation and healthy lifestyle for city residents. Source: "2035 General Plan: Future Bikeway Network" City of Stockton.

These bike lanes, which are consistent with Caltrans Guidelines, adopt a routing strategy that places designated bike lanes on existing streets and roadways.

### Constraint:

- The existing bicycle lanes in the study area lack the connectivity to the project site or to the Cabral Station. While the existing Class III bicycle lane on along Weber Avenue would serve as a transit connection to commercial office building, restaurants and retail connection to residential neighborhoods are needed.

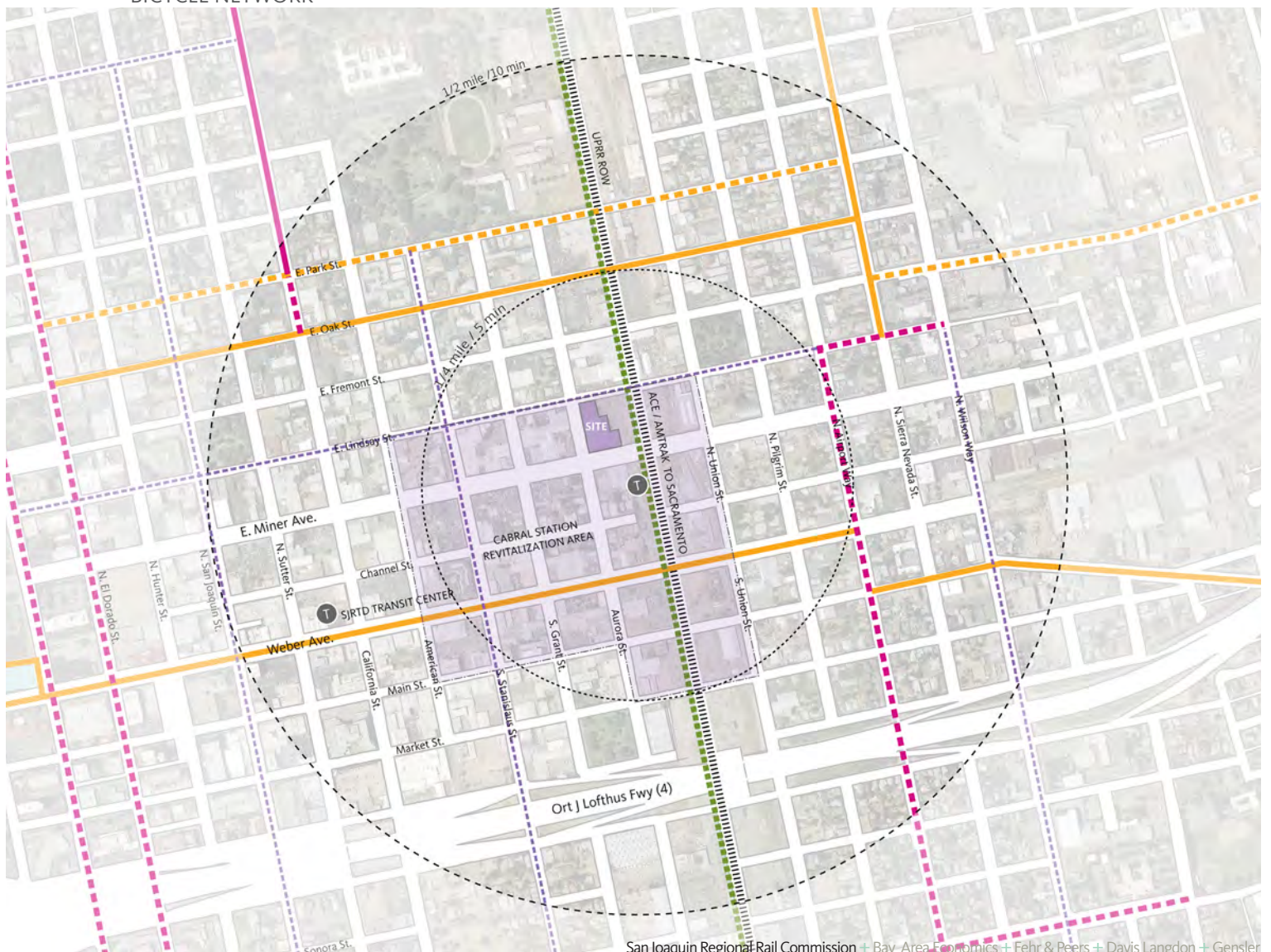
### Actions:

- Create linkages to existing intercity Class III bike route within 20 minutes of the Cabral Station Neighborhood to support bicycle commuting to and from the station.
- Support the planning and establishment of Class III bike lanes connecting the new waterfront residential developments through the downtown core to the eastern downtown neighborhoods consistent with those identified in the East Miner Avenue Streetscape Design Plan.



BICYCLE NETWORK

- Existing Class I
- Existing Class II
- Existing Class III
- Potential Class I
- Planned Class II
- Planned Class III
- Potential Studies



## 4.3.6 Permitted Uses

The City of Stockton Zoning District Map Section 4.2.3 details three Zoning Districts in the Cabral Neighborhood. They are Commercial Office [CO] Districts, which are intended to be transitional areas between residential and general commercial uses; the Commercial Downtown [CD] District intended to encourage a mixture of high intensity uses to create a pedestrian friendly environment and Industrial; and Limited [IL] District, appropriate of light manufacturing uses. The project site is zoned as IL District. "The IL zoning district is applied to areas appropriate for light manufacturing uses that may generate more nuisance impacts than acceptable in commercial zoning districts and whose operations are totally conducted indoors. Includes ancillary office uses. The IL zoning district is consistent with the industrial land use designation of the General Plan and include the allowable uses seem in the below list from the Stockton Municipal Code."

Source: Stockton Municipal Code (<http://qcode.us/codes/stockton/>)

### Constraints:

- Current industrial zoning places limits on type and extent of residential and commercial development on site, and will require change of use should alternate uses be appropriate.
- Current allowable uses in the IL zoning do not align with family and neighborhood goals.

### Actions:

- Incorporate change of use to Mixed-Use as part of the approval process for any projects affiliated with ACE or a future TOD development.
- Support a longer term comprehensive Station Area Plan which will provide overlay zoning of mixed use to sites under the control of Ace and SJRRC.
- Open space, Mixed-Use, medium density residential added to current zoning controls.
- Policies discontinuing some current allowable uses (shown struck-out below).

### ALLOWABLE USES FOR - INDUSTRIAL, LIMITED (Stockton Municipal Code)

#### Agricultural and resource-related uses

- Agricultural Conservation Areas
- Mining

#### Business and professional Uses

- Business support services
- Office

#### Industry, Manufacturing & Processing Uses

- Electronics, equipment & Appliance manufacturing
- Fabric product manufacturing
- Food and beverage product manufacturing
- Furniture and fixtures manufacturing
- Handcraft industries, small-scale manufacturing
- Laundries and dry cleaning plants
- Manufacturing -light
- Metal products fabrication, machine/welding shops
- Printing and publishing
- Recycling and waste facilities
  - Collection facility
  - Redemption centers
- Research and Development (R&D)
- Storage yards
- Warehouses
- Wholesaling and distribution

#### Recreation, Education, and Public Assembly Uses

- Clubs, lodges, and private meeting halls
- Commercial amusement facilities
- Educational Facilities
  - Equipment repair and maintenance training
  - Specialized education and training
  - Vehicle repair and maintenance training

- Equestrian facilities
- Golf courses/ country clubs
- Indoor recreation facilities
- Libraries and museums
- Marinas
- Outdoor commercial recreation facilities
- Private entertainment facilities
- Recreational vehicle parks
- Religious facilities

#### Residential Uses

- Caretaker and employee housing

#### Retail Trade

- Agricultural chemical sales
- Artisan shops
- Auto and vehicle sales -Used
- Auto and vehicle leasing/rental
- Building material stores
- Construction, farm & Heavy equipment sales
- Furniture, furnishings, and appliance stores
- Mobile home sales
- Nurseries and garden supply stores
- Outdoor retail sales and activities
- Recreational vehicle & Boat sales -New/Used

#### Services

- Animal services
  - Kennels and boarding facilities
  - Training facilities
  - Veterinary clinics and animal hospitals
- Auto/vehicle services
  - Car washes

- Fueling stations
- Inoperable vehicle storage
- Maintenance/minor repair
- Major repair/body work
- Parking facilities
- Vehicle storage
- Equipment rental
- Funeral facilities and services
  - Cemeteries
  - Mortuaries and funeral homes
- Medical Services
  - Ambulance service
  - Personal storage facilities (mini-storage)
- Repair services
- Sanitary Services
- Social services facilities
  - Feeding centers
  - Homeless shelters
  - Transitional housing

#### Transportation and communications uses

- Broadcasting studios
- Communications facilities -minor/major
- Transit stations and terminals
- Vehicle and freight terminals

#### Other uses

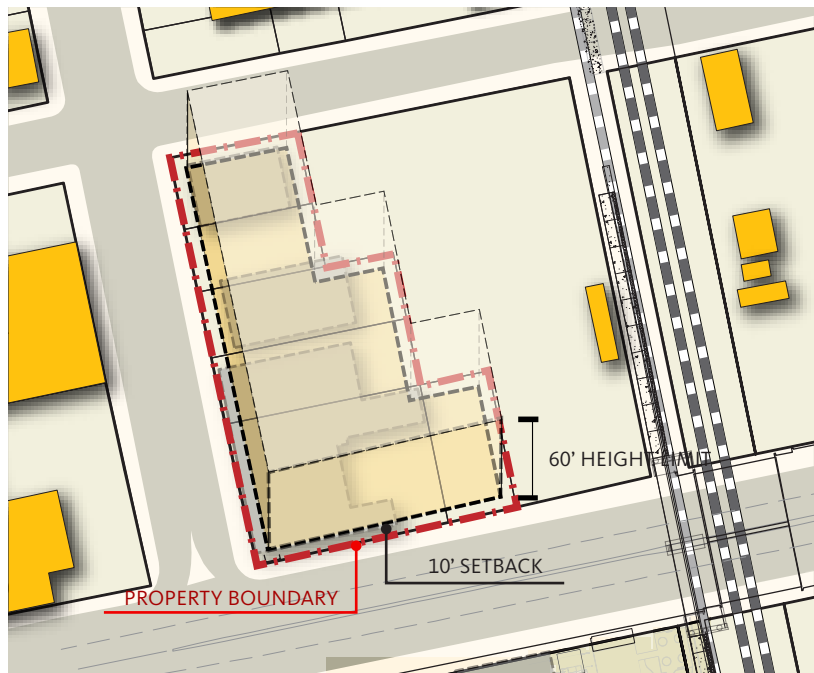
- Live-work space
- Motion picture production
- Multi-use facilities
- Public and semi public utility facilities
- Public institutions
- Signs-off-premises



### 4.3.7 Current Building Controls

The City of Stockton, through building and zoning codes, identifies the following new building controls on the Site:

Front / Side Setbacks:	10 feet
Rear / Interior Setbacks:	none
Maximum Height:	60 feet



The volumetric controls are consistent with the vision for downtown Stockton put forth by the City and the Redevelopment Agency. For the purposes of test-fits of parking structures, these guidelines were used to control the resulting building volume. Subject to the result of studies currently underway on the linkages between Stockton and HSR, these controls may be considered overly restrictive should future station area planning develop a higher density scenario for the area around the Robert J. Cabral Station. For the purposes of this study, the existing controls have been used throughout.

### 4.3.8 Sustainability on Site

The site was analyzed using a range of digital tools to evaluate climatic influences on building orientation and design to determine appropriate building strategies that would support sustainable strategies on site.

#### **Aligning Nature and Comfort**

Four key strategies which have been identified and accounted for in the project are: Direct Gain Passive Solar, Internal Heat Gain, Sun Shading, and Natural Ventilation.

- Direct Gain Passive Solar techniques are a means of using sunlight for useful energy without the use of active mechanical systems. A particularly useful strategy is optimizing the heating of interior space through the proper placement and quantity of sun-facing glass, allowing passive solar heating to raise internal temperatures. Combined with a variety of low and high thermal mass elements, this heat gain can be managed to extend the warming benefits beyond the hours when the sun is shining. It is estimated that careful application of direct gain passive solar techniques can deliver the desired comfort for a project for as much as 3500 hours of the year, or nearly 40 percent of the required heating requirement.
- Internal Heat Gain leverages the heat generating potential of internal loads such as lights, people and equipment. By accounting for and harvesting the released heat, a comfortable environment can be created without fuel-based conventional heating.
- Sun Shading during the cooling season can dramatically reduce building peak heat gain and cooling requirements as well as improve the natural lighting quality of building interiors. Depending on the amount and location of fenestration, reductions in annual cooling energy consumption of 5 percent to 15 percent have been reported. Sun control and shading devices can also improve user visual comfort by controlling glare and reducing contrast ratios. This often leads to increased satisfaction and productivity.
- Natural Ventilation, unlike fan-forced ventilation, uses the natural forces of wind and buoyancy to deliver fresh air into buildings. Fresh air is required in buildings to alleviate odors, provide oxygen for respiration and to increase thermal comfort. At interior air velocities of 160 feet per minute, the perceived interior temperature can be reduced by as much as 5°F.



## Reducing Energy Consumption and Carbon Footprint

In addition to leveraging nature to provide a more comfortable environment, there are a number of other sustainable design strategies and techniques applicable for this project that can help reduce fossil fuel energy consumption, and correspondingly, the project's carbon footprint. This is particularly important in the face of continually rising energy costs, both electricity and natural gas, along with growing demands to reduce the carbon footprint of buildings across the United States. More locally we must consider the implementation of California's greenhouse gas emission reduction goals.

While there are a host of sustainable technologies and strategies to consider, for this project type and location, key sustainable strategies to consider include daylight harvesting, solar water heating and radiant heating.

- Daylight Harvesting (or Daylighting) is the managed admission of natural light into a space through windows to reduce or eliminate electric lighting. By providing a direct link to the dynamic and perpetually evolving patterns of outdoor illumination, daylighting helps create a visually stimulating and productive environment for building occupants, while reducing as much as one-third of total building energy costs. Occupiable spaces should be located to the perimeter of the structure wherever possible to maximize daylighting opportunities.
- Solar Water Heating, which uses the sun's energy rather than electricity or gas to heat water, can efficiently provide up to 80 percent of the hot water needs—without fuel cost or pollution and with minimal operation and maintenance expense.
- Radiant heating of occupiable spaces is a technology utilized for the heating of both indoor and outdoor areas. Radiant heating heats a building through radiant heat, rather than other conventional methods including convection heating. The heat energy is emitted from a warm element (floor, wall, overhead panel) and warms people and other objects in rooms rather than directly heating the air. The internal air temperature for radiant heated buildings may be lower than for a conventionally heated building to achieve the same level of body comfort (when adjusted so the perceived temperature is actually the same).

Radiant heating has a number of advantages: it is more efficient than baseboard heating and usually more efficient than forced-air heating because no energy is lost through ducts. The lack of moving air can also be advantageous to people with severe allergies. hydronic (liquid-based) systems use little electricity, a benefit for projects in areas with high electricity prices. The hydronic systems can also be heated with a wide variety of energy sources, including solar water heaters.

### Sustainability Strategies

The environmental sustainability of this project should be reviewed further as the project progresses. Strategies having the highest potential impact on the sustainability of future structures are described below:

- **Photovoltaics:** A photovoltaic (PV) system may also be integrated into the facility. Unlike the fuel cell or turbine-based power plants which consume fossil fuels, the PV system would provide renewable energy to the facility. This system could range from 10kW to 200kW, depending on space and budgetary considerations. The PV system for the facility could be a “building integrated” system with custom modules integrated into (or replacing outright) the glazing materials used on the roof.
- **Solar Thermal Water Heating:** Solar thermal water heaters may be used to preheat domestic hot water.
- **Storm Water Recovery System:** Storm water from the roof may be filtered and diverted to a separate storage tank (cistern) located on site at or below grade. Filtering and retaining storm water reduces urban run-off and minimizes the sites’ impact on the city storm water system. This water may be used for green roofs or in street landscape irrigation as well as in-building uses.
- **Greywater Recovery System:** Wastewater from showers, laundry facilities and lavatories can be piped separately to a greywater recovery system. This system will collect, filter, disinfect and store the wastewater for reuse. This recovered water can then be distributed in a separate non-potable plumbing system and used for toilet flushing and landscape irrigation.
- **Domestic Plumbing Systems:** All plumbing fixtures specified for the building will be low-flow. ‘Waterless’ urinals are commercially available and should be evaluated owing to their reductions in sewage conveyance and water use.

The site offers a variety of highly effective opportunities to reduce the carbon footprint of any proposed facility. Planning of the site should consider innovative approaches to the long-term sustainability of the site, enhance the ability of the site to meet and exceed greenhouse gas reduction targets and establish itself as a model development in the Stockton community.



### 4.3.9 Parking Test-Fit

To confirm site capacity for surface parking, an industry standard allowance of 425 square feet per stall (inclusive of allowances for travel lanes, sidewalks, pedestrian paths and landscaping) yielded a potential of approximately 115 spaces in a surface park configuration.

Handicapped stalls in accordance with City of Stockton code should be located nearest the Robert J. Cabral Station.

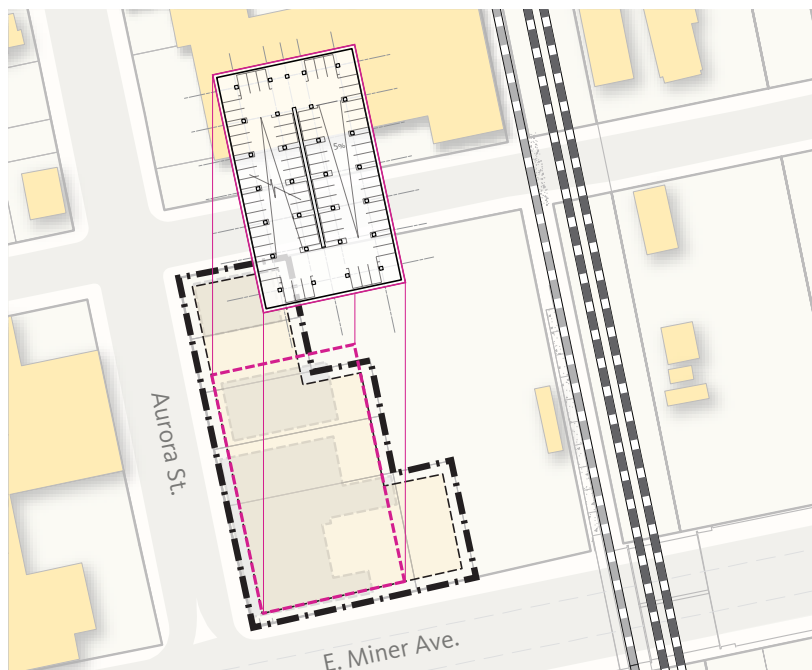
To confirm that the site is able to accommodate a parking structure, a test fit of a prototype parking ramp was completed as described below. This ramp, with maximum grades of 5 percent, and nominally 12 feet floor to floor dimension, describes the minimum footprint that a parking ramp would occupy on the site. This prototype yields approximately 68 stalls per floor, with allowances for vertical circulation, utility chases and structure. Within the existing height limit of 60 feet, a potential garage capacity on five (5) levels, of approximately 340 spaces is potentially achievable.

#### Constraints:

- The prototype, when placed on the site in conformance with building controls, demonstrates the site has restricted capacity to accommodate a parking structure.

#### Actions:

- Consider additional land purchase to increase area available for development as a parking structure for ACE.
- Identify alternative technologies and parking configurations that may allow a new structure within the study site bounds.
- Identify alternative strategies for provision of ACE parking.



## 4.4 Potential Uses & Program Elements of Mixed-Use

*“The community benefits of developing around transit are discernible in the goal statements of advocates of transit-oriented development: to create better communities and reduce driving by making walking and transit more realistic travel options. The so-called “four Ds” of transit-related development are distance, density, diversity and design – which add up essentially to a concentration of development of different types oriented toward the street within easy walking distance of a transit station. Transit-related development typically includes;*

- *A variety of services within easy walking distance of the transit station;*
- *Good pedestrian connections to transit and between buildings; and*
- *Buildings that are outwardly oriented toward the street rather than inwardly oriented toward parking.”*

Source: Pages 4 & 5: “Developing Around Transit: Strategies and Solutions that Work” Dunphy, Cervero, Dock, McAvey, Porter and Swenson, Urban Land Institute, Washington DC, 2004.

This section describes opportunities and potential uses which may be located in or adjacent to the proposed Mixed-Use Garage. Constraints are not a consideration in the following sections. Where appropriate, examples are cited to define the relative success or merits of each potential adjacent use. Potential uses are also described in the Chapter 2, “Economic Sustainability.”

### 4.4.1 Community Services

#### Education Opportunities

Stockton is home to the University of the Pacific, San Joaquin Delta College, UC Coop Extension School, and CSU Stanislaus branch campus. Higher education and research institutions are a draw to companies, particularly those with an interest in research and development and collaboration with academic institutions. With the growing interest in a sustainable curriculum, Stockton can combine the assets of its location, agricultural heritage, proximity to the delta, and manufacturing potential to attract additional or expanded educational entities.

Location of educational facilities near transit has been a long-held tradition, with major institutions from Harvard University to the University of California at Berkeley benefiting from proximity to transit. At a more modest scale, the Intermodal Station District Plan prepared for Union City, California, incorporates a potential transit-based educational facility for the Chabot-Las Positas Community College District. If successful, this will provide up to 70,000 square feet of educational facility immediately adjacent to transit and provides a potential model of community serving education.

Source: Union City Web Site: [http://www.unioncity.org/commdev/redev\\_intermodal.htm](http://www.unioncity.org/commdev/redev_intermodal.htm)

### Opportunities:

- Locate small on-site research institution / hubs, potentially focusing on green technologies and health, through partnering with either academic institutions or private industry in the Stockton region.
- Develop a sister school relationship with other higher education institutions and academies in the Bay Area and Central Valley to provide a small educational facility near transit to promote distance learning and job-retraining alternatives in the local community.
- ACE and San Jose State University (SJSU) have partnered to offer a fare discount program for SJSU students and employees. The fare discount program provides a 50 percent discount on 20-ride tickets and monthly passes. Potential exists to expand this to include the Santa Clara University.



UNIVERSITY OF THE PACIFIC STUDENT CENTER, STOCKTON CA

## Health Care Opportunities

The three largest private employers in Stockton are the medical institutions: St. Joseph's Hospital, Dameron Hospital and Kaiser Permanente. Stockton is also home to San Joaquin General Hospital, the new Gil Medical Center, and a branch of the Palo Alto Health Care System Veterans Association.

Hospitals and medical centers are critical institutions in a community, create a strong job base, and have significant impact on the secondary job market. As employers, they provide a wide range of job types and typically draw a strong base of doctors and their private practices. These institutions often play a role as research and educational centers for the medical field as well as for the community. They can provide an additional communal or civic center, focused on well-being.

The study site is limited in land area and ability to provide significant area for anything more than a community health clinic or doctors' offices, and may be of limited value as many of these services are provided to the local community through County Services. Importantly, subject to need, there may be the opportunity to establish a modest community preventative health clinic.

### **Opportunities:**

- Establish a new model of community care facility that adds to the choice of the local neighborhoods, and builds on facilities already in existence in Stockton's downtown.
- Pair a medical institution with community for professional training, particularly for nursing and other medical professions that are predicted to be in short supply in California as the baby-boom generation retires.

## Child Care Opportunities

The location of child care services and transit stations facilitates Transit Oriented Development. Approximately 42 percent of preschool-aged children with employed mothers spend 35 hours or more each week in a child care facility, with almost 50 percent of 3 and 4 year old children in full-time child care. By locating quality child care facilities close to or inside transit stations, families have incentive to use public transit and could reduce the number of miles that are driven by single occupancy vehicles.





### **CASE STUDY: Child Care at Transit**

Tamien Child Care Center, San Jose, California

The Tamien Child Care Center is located at the Tamien CalTrain and Lightrail Station in San Jose, California. This is one of the first child care centers developed in conjunction with the public transit services and demonstrates an incentive for parents to use public transportation instead of single occupancy vehicles. Parents receive additional benefits including transit passes, child care tuition discounts, and free commuter parking. Almost 80 percent of the funding for the project came from the Intermodal Surface Transportation Efficiency Act of 1991 (ISTEA).

Source: Santa Clara Valley Transportation Authority  
[http://www.vta.org/services/child\\_care.html](http://www.vta.org/services/child_care.html)

### **Opportunities:**

- Partner with a child care provider to provide services for commuters and users of potential commercial space.
- Provide a community multi-generational play area / recreational resource that broadens the potential user base of any child care facility.

“Over the last 30 years, we’ve been able to magnify environmental consciousness all over the world. As a result, we know a lot about the ideal environment for a happy whale or a happy mountain gorilla. We’re far less clear about what constitutes an ideal environment for a happy human being. One common measure for how clean a mountain stream is to look for trout. If you find the trout, the habitat is healthy. It’s the same way with children in a city. Children are a kind of indicator species. If we can build a successful city for children, we will have a successful city for all.”

Enrique Penalosa  
*Former Mayor of Bogota, Colombia*

## 4.4.2 Housing / Residential Innovation

Despite the current economic issues, Stockton and the Central Valley are predicted to continue to experience population growth at the highest rates in California. The San Joaquin Council of Governments (SJCOG) predicts that Stockton's population will increase by 50 percent in the next 20 years, leading to a 2030 population of 439,000 people. The California Department of Finance projects that by 2040 the San Joaquin Valley will be home to almost 12 million people.

Beyond these projected numbers there is a commuter population living in Stockton that travels to the South Bay on a daily basis. "As of 2000, about four percent of employed Stockton residents commuted to Alameda County, and an additional two percent commute to Santa Clara County for work. This represents almost 5,273 potential residents/tenants for housing convenient to the Cabral Station. Even capturing just a small percentage of those commuters in housing near the station, such as two percent, would create demand for 100 new TOD residential units near the Cabral Station."

Source: [2.4.4] "Cabral Station TOD Market Opportunities Report" 2010; BAE

"We are never going to save the rural places or the agricultural places or the wild and scenic places (or the wild species that dwell there) unless we identify the human habitat and then strive to make it so good that humans will voluntarily inhabit it."

James Howard Kuntsler

*Author: The Geography of Nowhere*

Housing forms a critical component of TOD throughout the world. In the San Francisco Bay Area, seen as a leader in the movement, The Metropolitan Transportation Commission (MTC) has identified a density range for a ½-mile radius around transit of 20 to 300 dwelling units per acre. ACE's Robert J. Cabral Station is consistent with the MTC's definition of a Transit Town Center, in which the MTC identifies the following targets for development:

Housing Mix: Mid-Rise, Low-Rise, Townhomes & Small Lot Single Family.

Housing Target: 3,000 to 7,500 units

Project Density: 20 to 75 dwelling units / acre

Jobs Target: 2,000 to 7,500 jobs

Minimum Floor Area Ratio: 2.0

Source: Pages 18 & 19, "Station Area Planning Manual", MTC, 2007.

These development density targets may need to be upgraded significantly should the High Speed Rail be located in, at or near the Robert J. Cabral Station, and Station Planning would be anticipated as being consistent with the MTC Station Area Planning Manual from 2007.

Beyond the housing types identified, and frequently brought to the market place, alternative housing models are being investigated as a way of reducing cost to the purchaser, increasing housing choice, and broadening the diversity of housing types incorporated near transit. This is being achieved through three more urban housing alternatives, these being:

- Micro-lofts, such as Cubix Yerba Buena, 766 Harrison Street, San Francisco, in which small units ranging from 200 to 350 square feet each achieve project densities of almost 380 units per acre, and deliver effective price points.  
Source: <http://www.housing.com/categories/homes/new-urban-housing/cubix-yerba-buena-san-francisco-ca-94107.html>.
- Live / Work Lofts, flexible work and housing types which provide cost effective space that is purpose zoned for both residential and limited commercial uses.
- Pre-Fab refers to a delivery mechanism rather than housing type, in which significant components of housing are manufactured off-site and transported to the site for erection. This trend has gained strength over the last 10 years as a viable means of providing custom home finishes at a more modest price point. Several manufacturers are experimenting with delivering multi-family housing via pre-fab means. Should these gain traction, they may be worth considering in Stockton as a way of providing workforce housing.

BAE's primary research with renters and brokers in Stockton shows support for the idea of innovative housing. "In the City of Stockton, both the current supply of residential units and the planned and proposed projects are predominantly single-family detached units. There is an opportunity to create a wider variety of unit types, recognizing that changing demographics over the next 15 to 25 years are likely to spur greater demand for different types of units."

Source: [2.4.4] "Cabral Station TOD Market Opportunities Report" 2010; BAE

### **Opportunities:**

- Building from the demand for diversity in housing choices in an expediently growing population, the current over-supply of single family houses and the data collected from the BAE report, there is a demonstrated need for new housing types in central Stockton. The opportunity exists to provide housing alternatives beyond those available currently in the Stockton market, and to lead the transformation of the East Downtown Area by providing a more urban housing prototype on a trial basis.
- The opportunity exists to provide a highly flexible housing type that may support both work and home in the form of live-work lofts. This option may provide the development partner with a degree of flexibility that will enhance the viability of the project and will enable the external street wall to have an urban presence rather than that provided by a single parking garage.

# 04

## Site Analysis + Opportunities & Constraints



### **CASE STUDY: Columbia City Live Work Lofts**

Seattle, WA

This mixed-use space in the Columbia City neighborhood in Seattle, WA has been designed for maximum flexibility with workspaces on the first two floors and a living space on the third floor of each 2,000 square foot loft. The owners of these eight units include a group of architects who share a conference space, a take away tamale shop, and bed & breakfast. All units share a parking lot and central courtyard where community activities and events take place. The owners, workers, and residents are part of a collaborative living and working environment and have the flexibility to change the spaces to fit their needs. These Live/Work Lofts are located nearby the Seattle Sound Transit Light Rail which connects downtown Seattle to Seattle/Tacoma International Airport.

Source: The Seattle Times Website

[http://seattletimes.nwsourc.com/html/pacificnw/2004360715\\_pacificpnw120.html](http://seattletimes.nwsourc.com/html/pacificnw/2004360715_pacificpnw120.html)

### 4.4.3 Neighborhood Amenities

In 2008, the City of Stockton began the Neighborhood Renaissance Program to identify distinct residential neighborhoods and strengthen their identities: “The goal of Neighborhood Renaissance Program (NRP) is for all residents to enjoy a high quality of life, safe from crime, with clean streets, access to parks, libraries and services, and active participation in City government.”

Source: City of Stockton Neighborhood Renaissance Program, 2008  
(<http://www.stocktongov.com/nrp/index.cfm>).

The Stockton City Village Zoning organizes new development areas to create vibrant, mixed-use villages characterized by a mix of land use, pedestrian and transit accessibility, and neighborhood identity. The tenets of smart growth and the ideas behind Village Zoning begin to describe the principle of “Complete Neighborhoods.” The City of Sacramento has used the idea of “Complete Neighborhoods” as “one where all residents have access to amenities and resources. As the city grows, the General Plan promotes equitable distribution of public transit, parks, shopping, childcare centers, farmers markets, and restaurants.” Stockton can reduce its reliance on the automobile, and become a sustainable city, by considering the whole city as a series of complete neighborhoods and districts, with downtown as its core. “Research shows up to a 40 percent reduction in Vehicle Miles Traveled (VMT) and a reduction of nine tons of carbon emissions per household... as a result of locating compact mixed use, walkable development in areas that will also serve existing neighborhoods.”

Source: Complete Neighborhoods for Santa Rosa, June 23, 2009.

“American families who are car-dependent spend 25 percent of their household income on their fleet of cars, compared with just 9 percent for transportation for those who live in walkable urban places. That potential 16 percent savings could go into improved housing (building household wealth), educating children or saving.”

Christopher Leinberger  
*The Option of Urbanism*

The surrounding neighborhoods are underserved with reasonably priced quality grocery stores, the existence of which are recognized as a key indicator of community health. In Washington DC, for example, the Healthy Cities Initiative is working with community groups and start-up retailers to establish neighborhood grocery stores that provide quality foods. With the Stockton economy still largely based on agriculture, the opportunity exists to partner with local producers to establish a neighborhood grocery store. Additionally, this may appeal to commuters using ACE, as discretionary trips to grocery stores most frequently occur on the return trip.



### CASE STUDY: Local Grocery Store

People's Grocery, Oakland, California

The People's Grocery is a non-profit organization committed to bringing quality, healthy foods to the underserved West Oakland, California neighborhood. In West Oakland, there is only one grocery store to serve over 25,000 people; in contrast there are almost 40 liquor stores which a majority of residents depend on for food shopping. By providing residents with access to healthy alternatives and organic, local produce, The People's Grocery hopes to not only bring food justice to West Oakland, but to also improve the health of residents, regenerate community and local economy, and create a connection to the earth and sustainable agricultural practices.

The People's Grocery operates out of the Mobile Market, a refurbished postal truck outfitted with refrigeration units and solar panels, to help distribute weekly produce boxes and sell sustainable, healthy food alternatives to the people of West Oakland. Some of the produce offered by The People's Grocery is grown in several urban, community farms in West Oakland and on a small two acre farm in Sunol, California. In addition, the program hopes to foster a local knowledge-based economy to give residents the ability to take control of the food supply and become self-reliant.

Source: The People's Grocery  
<http://www.peoplesgrocery.org/>

### Opportunities:

- Partner with local agricultural producers to establish a local grocery.
- Partner with local community groups to identify community needs and develop a coherent strategy that responds to these needs.
- Partner with Redevelopment Authority to establish reduced rental structure or other incentives to establishment of a neighborhood grocery store.

## 4.4.4 Flexible Use Space

Today's new work environments are becoming more flexible, and are anticipated as occupying significantly less space per employee than the industry standard of 180 to 230 square feet per person a decade ago. This trend is being supported by work mobility programs, greater flexibility in work hours, and a more mobile digital work force, being able to work outside the bounds of the traditional office environment.

Source: Gensler internal research for a confidential client

### CASE STUDY: Mobile Office Solutions

Regus Offices, Global Work Environments

In response to changing work environments, more dynamic roles of start-up businesses and telecommuting firms such as Regus Offices are responding to market start-up demands. Regus is global company providing serviced offices, virtual offices, work space, meeting rooms, and videoconferencing facilities on a contract or pay as you go. Regus is used by small businesses, larger companies with few employees in a location, and business travelers. The company operates over 1000 business centers in 450 cities around the world. This flexible working environment provides an office for digital workers who do not require a permanent work location.

Source: Regus Offices Website: <http://www.regus.com/>



### Opportunities:

- Subject to the timing of construction, a portion of the mixed-use structure may be used as touch-down and office space for commuters to provide the opportunity of contacting work colleagues prior to and after commute.
- The opportunity may exist to develop a modest incubator office space for local start-up businesses that may seek a near downtown location with easy access to a reliable public transport infrastructure such as ACE.
- An incubator office space may provide a bridge for maturing businesses, which may occupy more stable real estate in downtown Stockton as each business matures and grows.

## 4.4.5 Land Banking and Interim Strategies

A potential interim strategy for the under-utilized land is greening vacant or under-utilized lots. In the case of Philadelphia's New Kensington neighborhood, green infrastructure facilitates the holding of vacant land as interim green use which has been an effective element of Philadelphia's Neighborhood Transformation Initiative.

Source: Susan Wachter, *The Determinants of Neighborhood Transformation in Philadelphia—Identification and Analysis of the New Kensington Pilot Study* (The Wharton School, University of Pennsylvania: Philadelphia)

Urban agriculture also has a long history in Philadelphia, emerged as a means to stabilize and redevelop vacant land in the 1990's. Vacant land are cleaned and landscaped. Community gardens and education programs are established.

In Canada, urban agriculture is a component of a larger food security movement in Toronto, Ontario. A non-profit umbrella agency, FoodShare, and the Toronto Food Policy Council, a division of the City's Department of Health, have been the two main actors in creating policy for and using programs to support urban agriculture to assure that all Toronto residents have access to affordable, healthy, culturally appropriate food at the neighborhood, city, region and national level.

The designated under-utilized lands have potential for raising organic produce, fruit trees and plants for biofuel (where the soil is too contaminated to grow food). Empty factory buildings may be converted to house hydroponic fields to raise specialty vegetables, fruit and cooking herbs.

Another potential interim strategy for the undeveloped land is parking. In addition to surface parking, the city could consider the possibility of solar or wind powered parking. The addition of solar panels would provide shade and shelter for the users and generate clean energy to power the lighting on the site and send excess energy back into the city grid. The Google Campus in Mountain View, California has installed a system of "solar trees" in the parking lots which generate enough power for one third of the campus. This could also be a clear, visual demonstration of the city of Stockton's commitment to sustainability and environmental responsibility.



## 4.4.6 Innovations in Parking

Several innovations are being developed for parking garages which may have potential applicability in Stockton. Sustainable measures are increasingly being incorporated into parking structures and demonstrate a systemic influence these structures can have on their surroundings and the users of the parking structures. The following are three examples of innovation and parking.

“Off-street parking requirements and cars present a symbiotic relationship: the requirements lead to free parking, the free parking leads to more cars and more cars then lead to even higher parking requirements. When 3 spaces per 1,000 square feet [of new building] no longer satisfy the peak demand for free parking, a stronger dose of 4 spaces per 1,000 square feet can alleviate the problem, but not for long because cars increase in numbers to fill the new parking spaces. Every jab of the parking needle relieves the local symptoms, but ultimately worsens the real disease -- too much land and capital devoted to parking and cars. Parking requirements are good for motorists in the short run but bad for cities in the long run.”

Donald Shoup  
*The High Cost of Free Parking*

**1- Sustainable /LEED® Parking Structures:** These are Parking Structures that incorporate a number of sustainable measures to reduce their energy consumption, and reduce on site emissions through adoption of low-carbon energy technologies. In many cases, certification as under the US Green Building Council's LEED® system is being sought, and achieved (Refer to case studies in this section).



### **CASE STUDY: Sustainable Parking Structure**

Santa Monica Civic Center, Santa Monica, CA

The first LEED® certified parking garage, located in the Santa Monica Civic Center meets or exceeds many of the US Green Building Council's LEED® guidelines. Photovoltaic panels provide shade for top level parking and on-site renewable energy. The building is constructed with recycled materials and low-VOC paints and finishes with low e-glazing to decrease heating and cooling loads. A storm water treatment system captures and treats water and provides enough water for landscaping and onsite facilities. This parking garage provides 900 parking spaces with 2 percent devoted to electric vehicles and public electric outlets, along with free bicycle storage.

Source: <http://www.inhabitat.com/2008/04/14/first-leed-certified-parking-garage/>

Many public authorities are now adopting LEED® as a required element of receiving building approvals and occupancy permits. This trend is anticipated to grow, and at a minimum, the proposed structure should seek to reach LEED® certification at the time of construction to the extent ACE feels is appropriate.

Integrated solar arrays are proving increasingly popular, particularly where solar access is sufficient to warrant installation of PV cells given current efficiencies. As the arrays improve and new more efficient technologies become available, it is reasonable to expect increased use of arrays on parking garages as the rates of return on their installation improve.

At the Google Campus in Mountain View, California, solar arrays were installed over existing surface parking lots. This project is planned to generate 1.6 megawatts (enough to power about 1000 homes) and will provide about 30 percent of the energy needs for the Google Campus. In the future, electric car charging stations could also be incorporated into the system.

**2- NetworkED Parking Structures:** These structures are PV-enabled and connect to the neighborhood utility grid to enhance low-carbon generation, or, alternately, are being configured to provide future recharge stations for electric and hybrid vehicles. Usually, the opportunity of using otherwise vacant roof space for the installation of PV arrays generating electricity is the usual response, and these provide two benefits, 1) energy generation capacity; and, 2) shading of vehicles parking on the roof-top levels. Increasingly, smart-grid technologies are being incorporated into these structures, and it would be reasonable to assume that any structure should have the capacity to be connected to a future smart-grid in Stockton.



**CASE STUDY: Ahwatukee Foothills Park-and-Ride Facility**

Ahwatukee Foothills Park-and-Ride Facility, Phoenix, Arizona

The Salt River Project, a utility provider in Phoenix, worked with the City of Phoenix Transit Department, to install solar power panels on parking structures at an Ahwatukee Foothills Park-and-Ride facility. This \$1 million installation opened in 2003. The panels provide power for on site air conditioning, lighting and security systems and surplus power is fed directly into the Salt River Project grid, and supplies 102 kilowatts (kW), enough to power 10 homes emission-free per year.

<http://www.srpnet.com/environment/solarparking.aspx>

**3- Vehicle-to-Grid Technologies:** Vehicle-to-Grid (V2G) is a system in which electric or hybrid vehicles are connected to the power grid to deliver electricity to the grid during peak usage hours. Because most vehicles are parked for majority of the time, the batteries of plug-in vehicles could be used to move electricity from the car to the power grid and back, adding a utility value of up to \$4000 per year, per car.

The concept behind a V2G system balances out energy loads by charging at night or during off-peak times and sending power back out to the grid during peak hours. The V2G system would provide regulation services, provide energy reserves to meet sudden demands, and could potentially buffer other renewable energy sources by storing excess energy produced and releasing it back into the grid during peak times.

Three versions are available for the vehicle-to-grid concept:

- A hybrid or fuel cell vehicle, stationed at a utility, uses its generator for energy production during peak electricity usage times. These vehicles would serve as a distributed generation system and could produce energy from fossil fuels or hydrogen fuel cells.
- A battery-powered or hybrid vehicle would use its excess rechargeable battery capacity to provide power the grid during peak electricity usage times. The vehicles would be recharged during off-peak hours at a cheaper lower rate and help absorb excess night energy generation. These vehicles would serve as a distributed battery storage system.
- A solar or wind powered vehicle would use its excess charging capacity to provide energy to the grid after the battery is fully charged. These vehicles would become distributed renewable energy power stations.



#### CASE STUDY: Smart Grid

Smart Grid City, Boulder, Colorado

Xcel Energy has started planning and building the first SmartGridCity in Boulder, Colorado. This will be the first fully integrated smart grid community in the nation. Boulder was selected because it is a smaller city, with a mix of residential, commercial, academic, and research institutions. In addition to the installation of smart meters, SmartGridCity will be able to provide low priced, off peak EV charging rates for owners of plug-in hybrid vehicles such as the Toyota Prius PHEV. Toyota has donated 10 of these vehicles for research and development of the smart grid. Boulder's smart grid also is designed to manage the vacillating supplies of renewable energy from solar and wind systems and store this energy in the batteries of the plug-in hybrid vehicles.

Source: <http://smartgridcity.xcelenergy.com/index.asp>

A potential extension of the Vehicle-to-Grid concept is the potential impact on whole commute planning, where charging at parking structures may take place during the day, and the vehicle then be used as a supplemental power source to the home.

**Automated Parking Structures:** Innovative technologies are used to increase the spatial utilization of structures. Mechanized or Automated Parking systems have been experimented with almost since the inception of the parking garage as a building form. Over the past decade, automated parking systems have gained in popularity globally, and are increasingly being considered as an alternative on both cost and feasibility reasons. In Japan, there are estimated to be 1.6 million parking spaces provided by mechanized facilities.

There are generally two forms of mechanized parking marketed by a range of vendors today: simple stackers (which may be manually operated) and the higher density automated systems. Costs, particularly for manual stackers, are becoming more competitive, and there have been a number of small installations incorporated in projects in Berkeley and San Francisco.

The advantages of Automated parking systems are cited as being:

- Design flexibility that allows parking to be integrated inside of buildings or the center of the block.
- Flat floor plates and smaller volumes offer design advantages over ramped garages: height, mass, exterior integration of streetscape, and allow for future adaptive reuse.
- Mechanized parking increase driver, passenger, and vehicle safety.
- Reduced pollution with no vehicular exhaust inside.
- Land use efficiency and less circulation space (ramps, stairs, etc.) required.
- Increased parking capacity by volume, coupled with potentially reduced structure costs (potentially up to 3 times the capacity by volume).

Source: Pg 108 to 133: "The Parking Garage: Design and Evolution of a Modern Urban Form", Shannon McDonald, Urban Land Institute, Washington DC, 2007.

#### **Opportunities:**

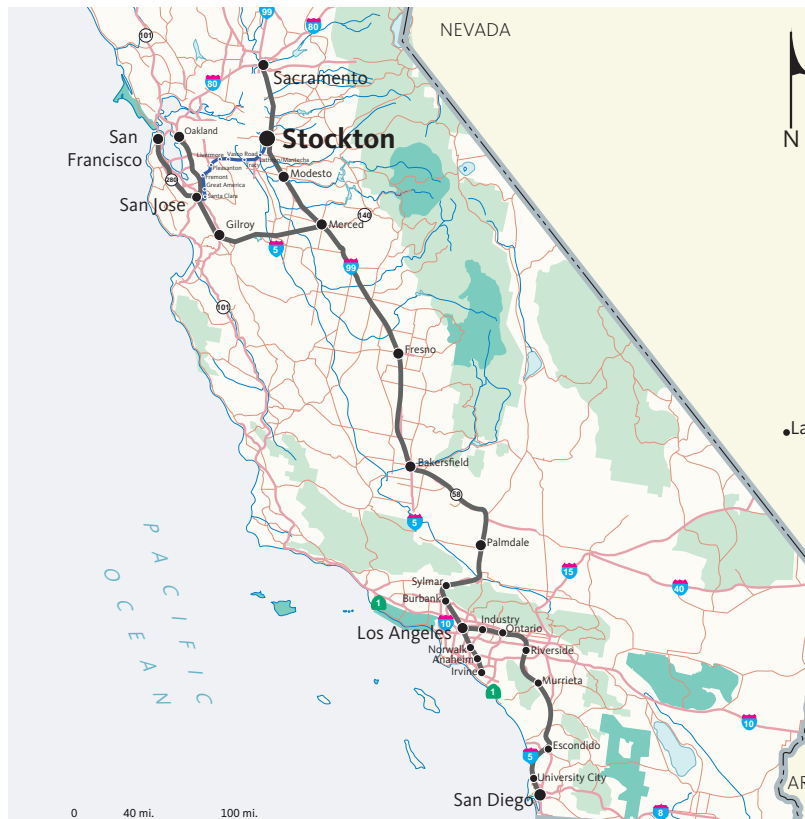
- The structure should seek to reach a level of LEED® certification that is acceptable to the ACE board as an example of local leadership.
- At a minimum, the roof level of the structure should be used to provide a base for highly efficient solar arrays to off-set daily energy demands for the development as a whole, and stabilize peak loads.

## 4.5 Planning for Community Success: State and Regional Issues with an Impact on ACE

This section describes influences on the success of ACE and Stockton, and summarizes initiatives which have the capacity to influence the long-term success of Stockton, and ultimately, may influence the course of the project and downtown Stockton.

### 4.5.1 California High Speed Rail

The California High Speed Rail Authority (CHSRA) is in the planning stages for a high-speed train that will provide service between Sacramento, San Francisco and San Diego and include a station in Stockton. In conjunction with this statewide system, the Altamont Pass Corridor project proposed to upgrade existing regional rail service between Stockton and San Jose. Altamont Corridor Plan plans for both an interim regional rail improvement and a future long-term HST connection. The potential impacts on Stockton of HSR are currently under study.



## 4.5.2 Vision California 2050

Vision California 2050 is currently being developed for the California Strategic Growth Council and the High Speed Rail Authority by a planning team led by Peter Calthorpe and Associates from Berkeley. Resulting from the enactment of SB 375, Vision California 2050 is intended to provide a strategic link between AB 32 and SB 375, and through scenario-based development of planning alternatives, establish a long range strategic growth plan for the state.

Like the work of the Association of Bay Area Governments (ABAG) in the San Francisco Bay Area, this study currently under way will develop long-range scenarios for California given a series of development scenarios, including typical horizontal suburban expansion to compact development focused on established urban areas.

According to the High Speed Rail Authority, Vision California 2050 will:

- Frame California's growth issues in a comprehensive manner, clearly expressing the role of land use in meeting greenhouse gas reduction targets through integrated defensible analysis.
- Clearly link land use and infrastructure priorities to mandated targets as set forth by AB 32, SB 375, and the California Air Resources Board (CARB).
- Produce tools that accurately and easily measure the impacts of land use and transportation investments for use by state agencies, regions, local governments, and the non-profit community.
- Produce state-wide scenarios that assess the combined impact of MPO Regional Plans and Blueprints.
- Educate stakeholders, interest groups, and citizens on the value of integrated land use and transportation strategies in reducing carbon emissions.
- Illustrate the critical linkages between land use and other major challenges, such as affordability, farmland preservation, infrastructure provision, energy and water consumption, and economic development.
- Inform the ongoing development of state and regional greenhouse gas reduction targets for automobile-related emissions.

Source: Vision California, <http://www.visioncalifornia.org/reports.php>

The project will model the consequences of varying land use and transportation scenarios and provide robust quantifications of the benefits of a more sustainable, transit-oriented future for California- one that is anchored by a statewide High Speed Rail network.

Source: CHSRA Website, <http://www.cahighspeedrail.ca.gov/library.asp?p=8448>

Ultimately, Vision California 2050 will provide a high-level strategic development framework for the San Joaquin Valley. This may have the benefit of helping address several environmental concerns that commonly impact Valley communities including Stockton;

- Decrease in agricultural land under production and increases in soil salinity
- Water Supply security for both urban centers and agriculture
- Decreased provision of public services due to greater dispersion of population
- Increased salinity and draw-down of the aquifer levels.

Subject to future State actions, the Vision California 2050 may be supported by additional funding initiatives to assist local communities. The implications on Stockton and ACE are uncertain. Additional funding sources may be required. Currently, concentration of density and population growth in existing urban centers is anticipated as the likely key findings of the Vision California 2050 study.

### **What will this mean to Stockton and ACE?**

Should the Vision California 2050 document be consistent with current research on sustainable communities, which suggest compact, highly-efficient, walkable and transit-connected cities are more sustainable than sprawling suburbs developed during the second half of the Twentieth Century, the results may mirror a recent proposal presented by the Greenbelt Alliance for the San Francisco Bay Area: Grow Smart Bay Area.

Source: <http://www.growsmartbayarea.org/index.html>.

In Grow Smart Bay Area, the Greenbelt Alliance used data from the Association of Bay Area Governments (ABAG) to develop a vision of the Bay Area in 2035, where all the projected population growth of an additional 2 million people and 1.7 million jobs can be accommodated inside existing urban areas. The implication is that a projected increase in population of almost 30 percent can be accommodated through careful densification and improvement of key locations in the Bay Area without contributing to further sprawl.

Population growth rates in the Central Valley are predicted to be greater than coastal Californian cities. The long term implication for Stockton is that it may be asked to accommodate significantly more population and jobs than currently exist, perhaps by more than 50 percent, by 2050. This potential projection, to be developed as part of Vision California 2050, will require that ACE become an active participant in the redevelopment and regeneration of Stockton, growing out of its current status as a mature city with great capacity for infill development and increased population and job density.



### 4.5.3 California Healthy Cities and Communities Network

The Healthy Cities movement began in Toronto, Canada in 1984 and spread to Europe under the direction of the World Health Organization (WHO). The model emphasized “the recognition that health and well-being are interconnected with social, cultural, physical, economic and other factors and that community-wide participation and collaboration are necessary to improve health and the quality of life.” Many towns and cities are actively involved in the United States, and cities such as San Francisco have recently enacted Healthy City Indices.

Source: <http://www.gfrpartners.com/HealthyCity-WhatIs.html>

“Each additional hour spent in a car per day was associated with a 6 percent increase in the likelihood of obesity. Conversely, each additional kilometer walked per day was associated with a 4.8 percent reduction in the likelihood of obesity.”

L.D. Frank, M.A. Andersen & T.L. Schmid  
2004; *University of British Columbia*

California Healthy Cities and Communities (CHCC) Network began in 1988 as a vision of bringing the WHO's Healthy Cities model to California. The CHCC Program assists local leaders with developing, implementing and evaluating inclusionary, community-driven programs, policies and plans which address the environmental, social and economic determinants of health. Participants have improved their communities in the areas of safety, youth and leadership development, healthy aging, cross-cultural understanding, nutrition and physical activity, quality of life measurement and others.

The County of San Joaquin is a member of the CHCC, and it may be possible to partner with the County to identify local community needs that will impact the area of the Robert J. Cabral Station, and identify funding sources for partnered community improvement projects, such as CSAs, Community Support Facilities, and production of additional open space for community benefit.

Altamont Commuter Express I Planning and Parking Strategy : Cabral Station



# Site & Design

Urban Design Principles + Sustainable Principles

# 05

Altamont Commuter Express I Planning and Parking Strategy : Cabral Station

## 5.0 Planning Goals and Objectives Recommendations

1. Work toward developing policy in the Cabral Neighborhood that supports transportation, community and sustainability. (Source: [5.1.1 and 5.1.2] “Planning Goals and Objectives” Gensler 2010).
2. Create an action plan focused on land parcel assembly for the project site. (Source: [5.3.1] “Planning Goals and Objectives” Gensler 2010).
3. Using this document as a “pitch piece” to create strategic partnerships to achieve development goals. (Source: [5.2.1] “Planning Goals and Objectives” Gensler 2010).

## 5.1 Planning Goals and Objectives

### REGIONAL GOAL: ACE CORRIDOR

ACE is engaged in an active role to reinforce neighborhood communities, build transportation connectivity and be a sustainability advocate reaching from Stockton in the Central Valley to San Jose in the South Bay. This leadership activity is above and beyond the core ACE objectives to advance the existing quality ACE passenger rail service in Northern California. This will include the following major initiatives:

1. The operational advancement to High Speed service along the Altamont Corridor
2. The expanding of the ACE alignment eastward to Merced
3. Improved transit connections to BART in the East Bay

### LOCAL GOAL: CABRAL STATION

ACE seeks to work with the City of Stockton to:

1. Identify a long-term economic redevelopment vision for the underutilized industrial land at/near the Cabral Station area and initiate land assemblage/land banking of the underutilized land to make property readily available for long-term economic development and land revitalization.
2. Take leadership in ensuring that the Robert J. Cabral Station Neighborhood: A Plan for Revitalizing East Downtown Stockton is substantially implemented as planned.
3. Enhance the desirability of the station area for Transit Oriented Development (TOD) by pursuing a TOD-friendly zoning and land use updates and establish a well-served transportation network.
4. Enhance transportation connectivity variable scales of Stockton transit. The first is the neighborhood scale including pedestrians, bicycles and local bus service. The second is at the city and regional scale. This will include bicycles, shuttle service and Bus Rapid Transit (BRT).

### PHASED APPROACH:

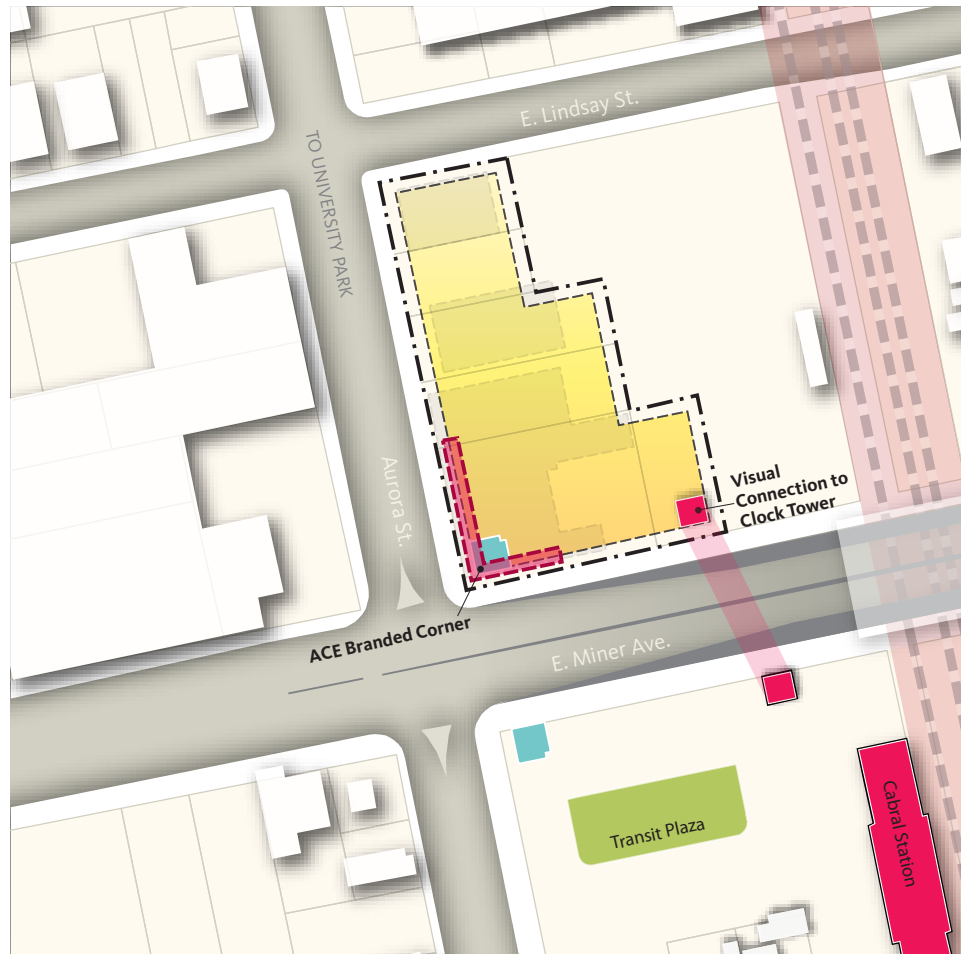
This section studies development opportunities with three distinct time lines. The phases considered are : 2010-2015, 2015-2020, and Year 2025. Two primary differentiators between phase 2015-2020 and Phase 2025 is the assumption of a full build out of Altamont Rail Corridor, which will have the necessary infrastructure to allow California High Speed Rail trains to access the corridor and provide intercity connection to Sacramento and Merced to/from the Bay Area. The second is a substantial build out of a Transportation Oriented Development (TOD) in a half mile radius of the Cabral Station.

### SITE OBJECTIVES : ACE PARKING AT THE CABRAL STATION

The site shall be developed first as a half block area expanding to a full block development as parking demand increases . A phased implementation strategy will be applied to the site for both the surface parking solution and the structured parking solution. Phasing will provide the required flexibility to adjust to changing market and transportation demands. The site will prioritize community oriented design, connections to multiple modes of transportation and be sustainability focused.

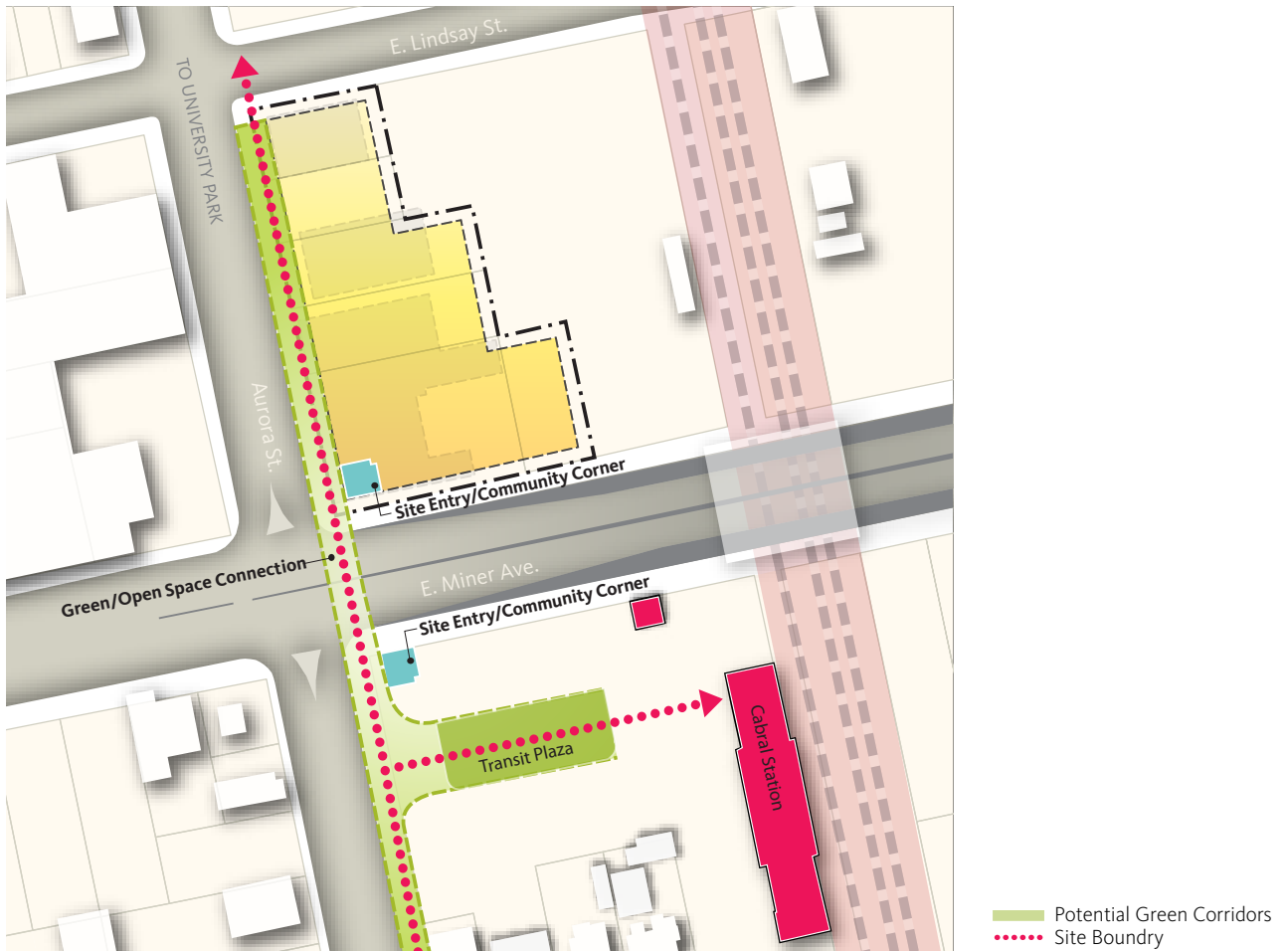
## 5.1.1 Urban Design Principles

People, communication and connections are at the core of the urban design principles of this project. These ideas are the drivers used to shape and inspire the following design principles. The project site is illustrated by the dashed line, in its most basic form, in the diagrams that follow. The design idea drivers generated in the surrounding urban context are illustrated by action diagrams impacting the project site. The final project designs are direct results of the project urban principles.



## 1. PROJECT IDENTITY: ACE Leadership

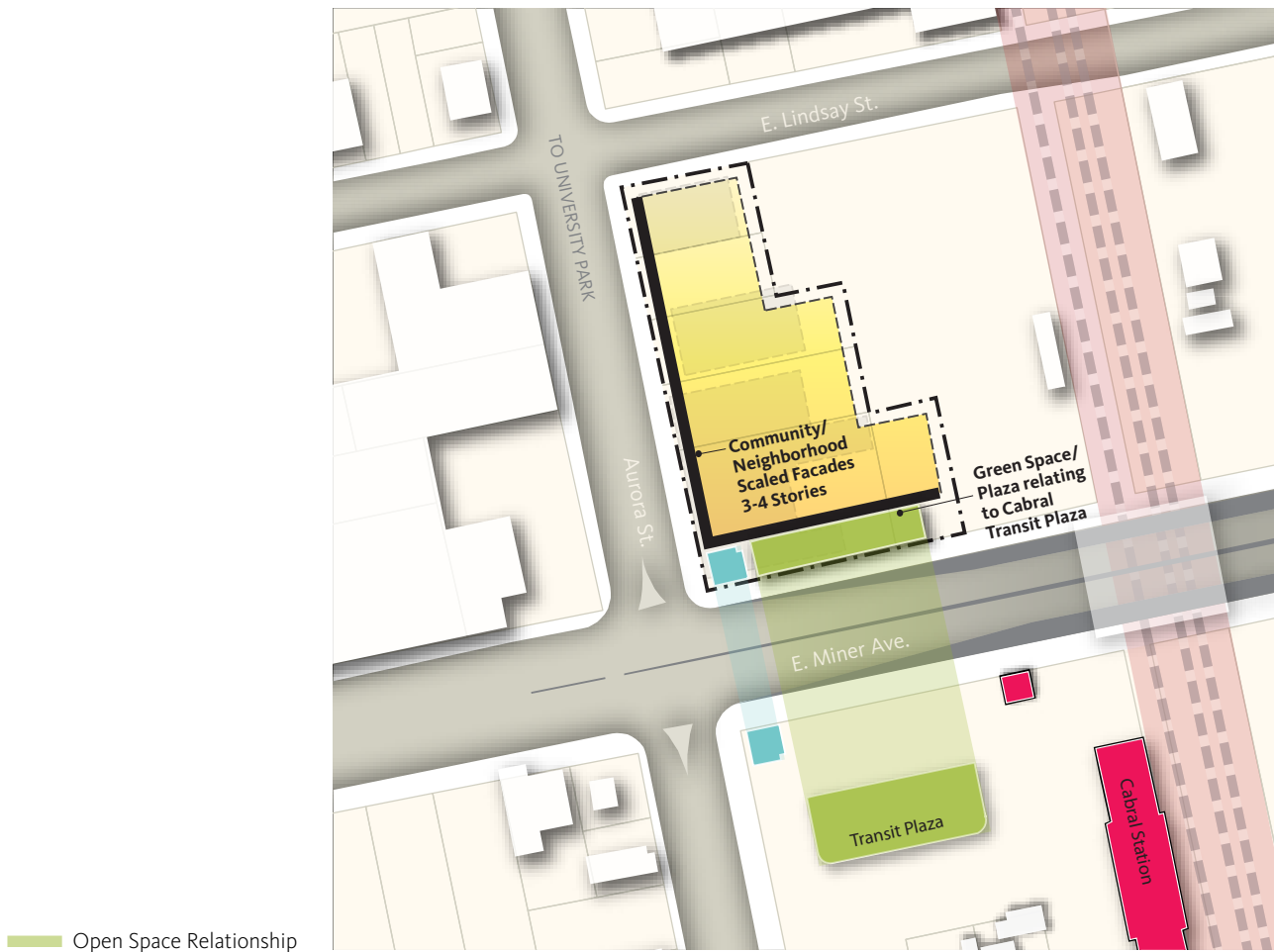
- Establish a compelling identity for the ACE brand site at the corner of Miner Avenue & Aurora Street.
- Define the 'gateway' to Downtown Stockton utilizing façade features and the clock tower at the Cabral Station.
- Set project massing to anchor and form closure to the newly complete transit plaza at the Cabral Station.
- Create a design aesthetic that embodies "the future of ACE" and a transportation and sustainability leader. This aesthetic would be a complement to the existing Cabral Station, which embodies history, reliability and dedication to years of rider service.



## 2. CONNECTIVITY: Emphasis on Pedestrian Access

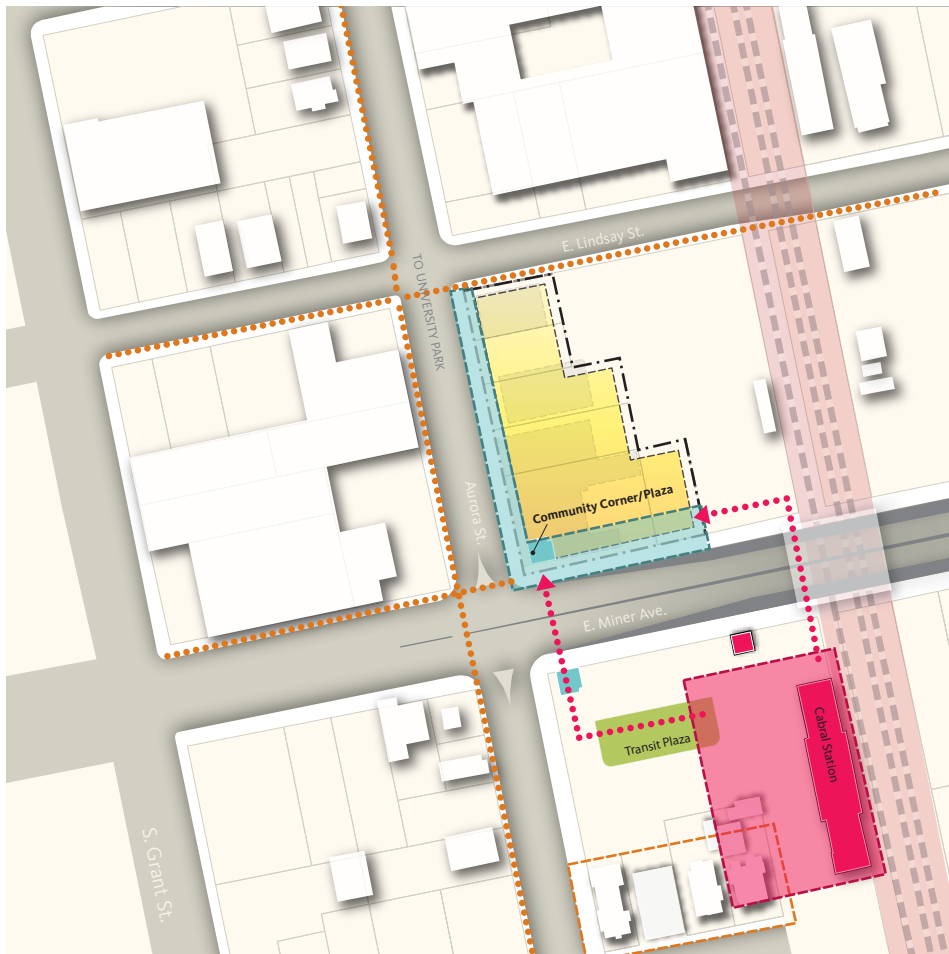
- Create visual and functional connections between the site, the Cabral Station parcel, and the University Park site.
- Enhance the pedestrian experience around the site by improving sidewalk conditions and exploring the potential pedestrian bridge across Miner Avenue.
- Establish a coherent network of open spaces that provide pedestrian connections and places of activity throughout the project site.
- The pedestrian is the priority in this urban design principle specifically related to this project site. However multi-model transportation connections are an essential driver of project success. Bicycle and bus transit connectivity are touched on in Section 4.3.4 and 4.3.5.





### 3. SCALE: A Neighborhood Response

- Establish built volumes that relate in scale and modulation to their adjacent context and reinforce street corridors surrounding the site.
- Seek to complete the Miner facade with built form that respects and enhances the connections between the project site and Cabral Station.
- Seek to reduce the scale of the project facing Lindsay Street to respect the residential nature of this street.



..... Neighborhood Paths of Travel

#### 4. SOCIAL SPACES: ACE Rider Community

- Create a central gathering space to establish a sense of community and contribute to the wellness of the residential and working communities.
- Institute a mix of retail uses that create a synergy between the amenity needs of the Cabral neighborhood and an ease of life benefit for the ACE ridership.
- Establish engaging public spaces with attractive street furniture and public art.
- Program open space with events and social activities that reflect the East Stockton and Cabral neighborhood residents.
- Create around-the-clock activity to support security and bring people into the community to stimulate economic activity.



## 5. ARCHITECTURAL INTENT: Design Guides

- Strive for architectural character that reflects the surrounding community and ACE as a visionary transportation leader.
- Activate street activities and delineate strong spatial definition by positioning the buildings at the front property line.
- Locate retail, office, or community amenities on the ground floor and encourage cafes and restaurants to provide seating along the pedestrian walkways to stimulate social interactivity and enhance the pedestrian friendly character of the street.

## 5.1.2 Sustainability Principles

Sustainability is a core principle within this project. As a parking solution that facilitates the use of public transportation, this project is critical for reducing the greenhouse gas emissions that may result from this project. Based on the City of Stockton's Greenhouse Gas Inventory of 2005, transportation was responsible for 73.1 percent of emissions. As a phased strategy, the design embraces the need for flexibility and adaptability. Because the site is highly visible to the community, the project has the opportunity to demonstrate leadership in environmental responsibility. It can inspire residents and visitors to learn more about sustainability and engage in sustainable behavior.

As a large component of this project is based on automobile parking, it is important to include context on the State of California's vision for personal transportation in the coming years. The California Air Resources Board has created a road map to achieving one hundred percent of car sales are of zero emission vehicles by 2050. Electric Vehicles (EV) will be a key component of this zero emissive initiative. Thus the capability for vehicle charging. EV charging capability was incorporated into the design options, and potential capacity is included in Sections 5.4.1 and 5.4.2.

Source: <http://www.hybridcars.com/incentives-laws/california-green-car-roadmap-2050-26231.html>

### Rating Systems

There are several sustainability rating systems that have been a useful reference in establishing principles and strategies in this project:

#### SUSTAINABLE SITES INITIATIVE

The Sustainable Site Initiative (SSI) seeks to establish and encourage sustainable practices in landscape design, construction, operations, and maintenance. SSI was created by the American Society of Landscape Architects, the Lady Bird Johnson Wildflower Center, the United States Botanic Garden, as well as a diverse group of stakeholder organizations.

Source: <http://www.sustainablesites.org/>

#### GREENROADS

The Greenroads rating system is a collection of sustainability best practices that apply to roadway design and construction. It was created by members of the University of Washington and CH2M Hill, Inc. and was sponsored by Transportation Northwest, State Pavement Technology Consortium, Western Federal Lands Highway Division, and Oregon Department of Transportation.

Source: Muench, S.T., Anderson, J.L., Hatfield, J.P., Koester, J.R., & Söderlund, M. et al. (2010). Greenroads Rating System v1.0. (J.L. Anderson and S.T. Muench, Eds.). Seattle, WA: University of Washington.

## LEADERSHIP IN ENERGY AND ENVIRONMENTAL DESIGN

Leadership in Energy and Environmental Design (LEED®) is a green building rating system that addresses many types of projects, including buildings, interiors, and neighborhoods. It was created by the US Green Building Council.

Source: <http://www.usgbc.org/>

This section of the Planning Goals & Objectives describes the sustainable principles that are employed in this project, organized by the following themes: Ecosystem, Water, Energy, and Materials. Also, Sections 5.4.1 and 5.4.2 describe how the sustainable principles were integrated into the design options.

## Ecosystem



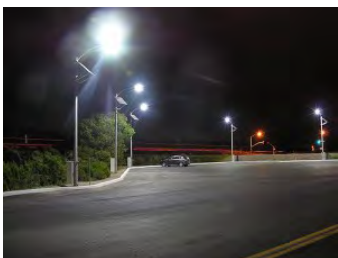
### NATIVE AND ADAPTED VEGETATION

This design integrates planted areas within the hardscape in order to enhance the overall ecosystem health of this area. The design recommends the use of native and native-adapted vegetation. This will create a regionally appropriate landscape, provide habitat for birds and other pollinators, reduce the risks associated with invasive species, and reduce the need for irrigation.



### COMMUNITY SUPPORTED AGRICULTURE

This design includes Community Supported Agriculture (CSA), which has a number of sustainability benefits. Providing a local source of produce dramatically reduces the embodied transportation energy associated with many crops, especially those coming from other countries. Providing CSA, and especially linking a produce market with the parking solution, makes healthy fruits and vegetables readily available to residents. Also, residents will become more aware of the seasonal cycles of crops, have a chance to learn about plants first-hand, and interact with other members of the community.



### PREVENTING LIGHT POLLUTION

This design takes care to protect the night sky and prevent light pollution. Not only does directing light upward waste energy, but also it disturbs the nocturnal environment within this urban ecosystem. In order to prevent light pollution, this design recommends “full cut-off” lighting. This means that lighting is directed downward, with an opaque material blocking the light from escaping upward.

## Water



### NO OR LOW IRRIGATION

Water is a precious resource in California. For the planted areas that are integrated with the hardscape, this design recommends the use of native and native-adapted plants that are drought tolerant and require no irrigation. If plants that require irrigation must be included, a sub-surface drip system should be used that is linked with soil moisture monitoring and weather conditions.



### STORMWATER MANAGEMENT

This project emphasizes low-impact design (LID) strategies with respect to stormwater. In order to recharge aquifers as well as minimize burden on the storm sewer system, this project will maximize stormwater infiltration on site. This is accomplished through the use of pervious paving materials, planted areas, and grading for swales. These elements can also have a beneficial impact on aesthetics and sense of place. Pervious materials, such as interlocking pavers, should be utilized as much as possible, as long as bearing requirements and maintenance considerations are accounted for. In areas where concrete or asphalt are required, permeable versions of these materials are recommended.



### RAINFALL COLLECTION

This site receives annual rainfall of about 16.6 inches per year, mostly falling from November through March. Rainfall collection and reuse during the drier season may be a possibility, depending on the cost of storage, treatment, and available uses. If this were pursued, about 30,000 gallons would be available on average every month. Potential uses are toilet flushing, in the case of the structured parking solution described later in this document; irrigation of an athletic field that is proposed to be adjacent to the parking.

## Energy



### REDUCE CONSUMPTION

The first step in any sustainable energy strategy is to reduce energy consumption as much as possible. In the case of parking, the main consumer of energy is lighting. This design proposes a high-efficiency lighting strategy, likely using light-emitting diodes (LEDs). LED pole lighting and outdoor fixtures are emerging and innovative products that consume a fraction of the energy of typical lights. In the case of the structured parking solution described later in this document, the occupied ground level must also focus on reducing energy consumption. Specific strategies are described in Section 5.4.2.



### PROVIDE RENEWABLE SUPPLY

Once a project has reduced its energy consumption as much as possible, it can then plan for a supply of renewable energy. This design includes photovoltaic (PV) panels to provide on-site electricity. PV panels are recommended in several different applications. It is now common for pay stations and even parking meters to have integrated PV panels to provide the electricity they need to operate. Stand-alone pole lighting is also available with an integrated PV panel. For street lighting and perimeter lighting, this design recommends selecting LED pole lighting with a PV panel that is integrated into the full cut-off surface. This design includes a PV canopy, which can provide all of the energy needed for lighting within the parking area, as well as additional uses of electricity, such as electric vehicle charging. Estimations of electricity production are included in the descriptions of each phased solution. For lighting within the parking area, the design recommends that LED light fixtures be mounted to and draw power from the PV canopy.



## Materials



### REDUCING URBAN HEAT ISLAND EFFECT

Paved surfaces, especially those that are dark in color, absorb the sun's heat and cause an increase in ambient temperature. This is called the urban heat island effect and can increase a city's temperature by approximately five to eight degrees Fahrenheit. It is important to reduce this effect as much as possible because it creates human discomfort in outdoor environments, causes buildings' cooling systems to consume more energy, and disrupts ecosystem function. In order to reduce the urban heat island effect, this design recommends selecting horizontal materials with a Solar Reflectance Index (SRI) rating of at least 29 and maximizing planted areas.



### RECYCLED CONTENT AND REGIONAL SOURCING

The energy required to harvest virgin material is typically much greater than the energy required to recycle and/or repurpose materials. Recycling and repurposing also prevent material from being sent to landfill. Transportation, especially for very heavy materials like paving, is a significant proportion of any product's embodied energy. Therefore, this design recommends using materials that have high recycled content and can be sourced locally. This also has the benefit of supporting the local economy.



### PLANNING FOR FUTURE REUSE

Since this project focuses strongly on phased uses, it is very important to consider how materials could be designed to be deconstructed, moved, reused, donated, or even resold when the project evolves. In general, materials should utilize mechanical connections when possible, in order to maximize their ability to be deconstructed and reused effectively. For example, pavers should be installed in a way that they may be lifted at a later date, if possible. PV panels should be attached to the canopy of the surface parking lot in a way that they can be later detached and re-installed in the canopy on the roof parking structure.



### 5.1.3 Implementation

SJRRC's approach to TOD in the Cabral Station area should emphasize a balance between economic efficiency, to maximize the amount of transit-supportive development that can be developed in close proximity to the rail station, and public amenities, to further bolster increases in transit ridership over the long-term. The concept for TOD in the Cabral Station area is long-term, recognizing that with current economic conditions and current transit service levels at the station, the potential for TOD is limited. With the expectation that the level of transit service at Cabral Station will increase over time, this plan seeks to guide the actions of SJRRC and its partners to position the Cabral Station Area to best capitalize on the long-term opportunity presented by increased transit user activity in the area, by preventing available land in the area from converting to non-transit friendly uses, utilizing the land for various interim uses as a land banking technique, and then ultimately developing the land for mixed-use TOD and/or parking for transit users.

In most cases, it will be costly for SJRRC to acquire property for land banking and for development of TOD projects; therefore, SJRRC should focus efforts on working with the City of Stockton to implement appropriate zoning updates in the Cabral Station area to minimize the potential for the development of non-transit friendly uses in the area. With care, an approach can be crafted to allow existing uses to continue to operate in the interim, until such time as economic conditions are such that property owners become economically incentivized to pursue redevelopment that is consistent with the design objectives and principles articulated in this plan. Ultimately, effective land use guidance will be the most powerful tool that the City of Stockton, with SJRRC's support and advocacy, can wield in implementing this plan. SJRRC can work strategically with partners to control and develop a limited number of key properties within the area, to serve as catalysts, and set the tone for the type of development that private property owners and developers should pursue.

Various sections that follow in this chapter more fully articulate the implementation approaches that are recommended for strategic site acquisition within the Cabral Station Area and interim land banking, for development of surface parking, and for development of structured parking in conjunction with TOD commercial development. Section 5.5.1 and Section 5.5.2 provide background information on real estate financial analysis and potential funding sources, respectively, which are referenced in this chapter.

## 5.2 Land Use Advocacy

The ACE service corridor connecting Stockton to San Jose has the ability to positively impact the quality of life for the individuals and communities it services. The nine cities served by the ACE stations (Stockton, Lathrop, Manteca, Tracy, Livermore, Pleasanton, Fremont, Santa Clara, and San Jose) have a combined estimated population of 1.93 million people. The total potential impact to the lives of Bay Area and Central Valley residents provides ACE a unique and powerful position in the formation of transportation and planning policies. In the last decade the recognition of the need for reduction in energy demand, climate management and land preservation has given renewed appreciation for the benefits of city living. The re-visioned city is a vibrant, dense, urban place with a strong sense of community. In "Successful Development Around Transit," the Urban Land Institute (ULI) describes one of the key factors in achieving community as "creating the kind of place in which residents want to live, work, play and raise their children" (Source: P.12 "Successful Development Around Transit" ULI 2003). At the level of city planning this idea would translate into a community that has a balance of jobs, residences, and mixed-use combined with high-density residential; while preserving single family and garden residential units.

While acknowledging the importance of density and land use in regards to the Cabral Neighborhood and this project, there is a clear mandate for action related to current zoning regulation and the City of Stockton 2035 General Plan. In their Economic Sustainability and Transit Oriented Development [TOD] Lessons Learned research papers, BAE has a very specific recommend action. "To maximize the long-term potential for TOD in the Cabral Station area, it will be important for SJRRC to advocate for land use changes in the area consistent with the vision of the Cabral Station Neighborhood Revitalization Plan, to ensure that available land in close proximity to the station does not get tied up in lower-intensity, non transit-friendly land uses. Updating zoning, General Plan land use designations, and/or development codes should be consistent with a TOD vision."

### 5.2.1 Strategic Partnering

Partnering is essential for setting the appropriate vision for a Cabral Station TOD. Bringing on partners at the initial stages of a TOD or Station Area Plan (SAP) sets expectations, creates ownership in the project's success and establishes communication protocols and a platform for dispute resolution. The project has to be a community vision and a market-driven reality. ULI recommends a partnership involving public and private groups. Both groups bring different talent and expertise that will drive the success of the project. The public partner can help with land assembly, entitlements, financial incentives and transportation/infrastructure improvements. The private partners are the financial experts; they know the market demands and the community network.

Implementation is the act of grounding the vision. Jobs and industry are a large part of the financial viability of the project and thus a crucial partner in making TOD a reality. Employers located in the TOD provide a tax base that can be used for the benefit of the local community and support needed infrastructure improvements. Jobs can both add to a successful TOD area as well as utilize ACE as a transportation alternative traveling to and from work. Partnering with industry to create a “community of riders” is a goal of the transportation-industry partnership. Creating transit culture can involve transportation incentives to riders; delivering fun, comfortable service to workers; and work-supportive amenities. These amenities would include conveniences such as internet connectivity and quiet cars for a more focused work environment.

### Partners: Public

- San Joaquin Council of Governments (COG)
- Stockton Redevelopment Agency
- San Joaquin Regional Transit District (RTD)
- Housing Authority of the County of San Joaquin
- Stockton City Planning
- Other city officials targeted for similar ACE developments along the ACE transportation corridor

### Partners: Private

- Downtown Stockton Alliance
- Local developers
- Local landowners
- Neighborhood organizations
- Public schools representative

### Partners: Industry

- San Joaquin County [as an employer]
- Health care industry
- Industry requiring specific worker profiles, such as mid-income call centers employees
- Public and private universities

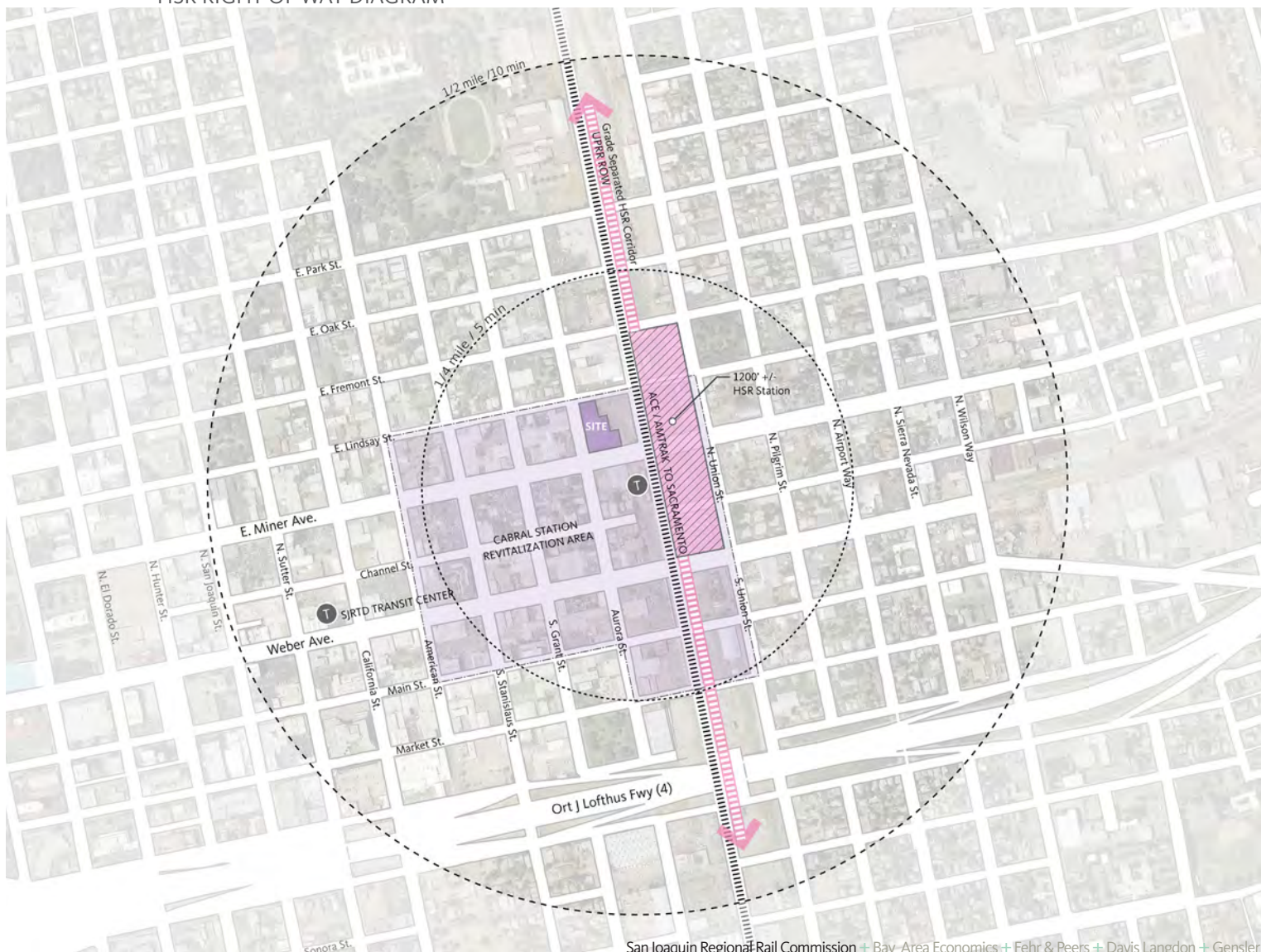
## 5.2.2 Protection of Right of Way: HSR

The California High-Speed Rail Authority received approval for construction of a high speed rail service from San Francisco to Los Angeles/Anaheim with the passage of Assembly Bill No. 3034 which enacted Proposition 1A. Proposition 1A is the Safe, Reliable High-Speed Passenger Train Bond Act approved by voters on November 4, 2008. In supporting this measure voters approved funding: "To provide Californians a safe, convenient, affordable, and reliable alternative to driving and high gas prices... while reducing air pollution, and global warming greenhouse gases" (Source: California High Speed Rail Authority website: <http://www.cahighspeedrail.ca.gov/news.asp>). The exact track alignment of the new rail passenger service and thus the implication to connecting passenger rail service is not currently known. This fact coupled with the planned improvements for the existing ACE corridor suggests a closer look at the physical requirements of trains making stops at the Cabral Station. Issues of consideration are to include train lengths, vehicle road crossings, platform locations and path of travel from the train to the station. The adjacent diagram represents a focused area of study based on circulation, land use and HSR train specifications. The issue of "train space" and the adjacent land parcels has specific relevance for the first project phase of Land Use Advocacy and the second project phase of Land Banking.



Conceptual view of a generic high speed rail station interior. | Photo by NCSQ for the California High Speed Rail Authority

### HSR RIGHT OF WAY DIAGRAM



### 5.2.3 Station Area Zoning

Land Use Advocacy, which is the engagement of public and private partners, to advocate for a new vibrant, sustainable community in East Stockton is defined as the first phase Section 1: Project Overview. This community would be based on a broad mix of uses including retail, parks- open space, local jobs and a variety of housing types. To build this rich urban environment the proper regulatory controls must be in place. The first phase Land Use Advocacy established in this document is the incorporation of a Station Area Plan or Cabral neighborhood overlay district allowing for high density, high intensity land use.

At the core of TOD is one simple idea: tie transportation to land use. The minimum recommended development density to support transit is reported by Reid Ewing in Transportation Research Record 1552. For development with frequent local bus services the recommendation is for 15 dwelling units per acre, 38 residents per acre and 75 employees per acre. The minimum density for light rail service is 9 dwelling units per acre, 23 residents per acre and 125 employees per acre. These targeted densities and land uses are currently found in the Stockton 2035 General Plan. Land Use Designations that will be necessary for success in the project area include Medium Density Residential, High Density Residential, Open Space/Agriculture, and Mixed Use.

An additional benefit of increased density and mixed use development is the reduction of Vehicle Miles Traveled (VMT). As previously mentioned the City of Stockton 2005 Green House Gas (GHG) Inventory details 73.1 percent of CO<sub>2</sub> emissions result from transportation. Transit access, and its relationship to land use, is critical to meet city and state sustainability goals. The city and regional transit authorities will need to work in close partnership with local transportation providers to create a network of viable and attractive alternatives to the personal automobile. California Assembly Bill (AB) 32 is a law implemented to remediate the current levels of GHG emissions and enforces a mandatory reduction in GHG emissions to 1990 levels.

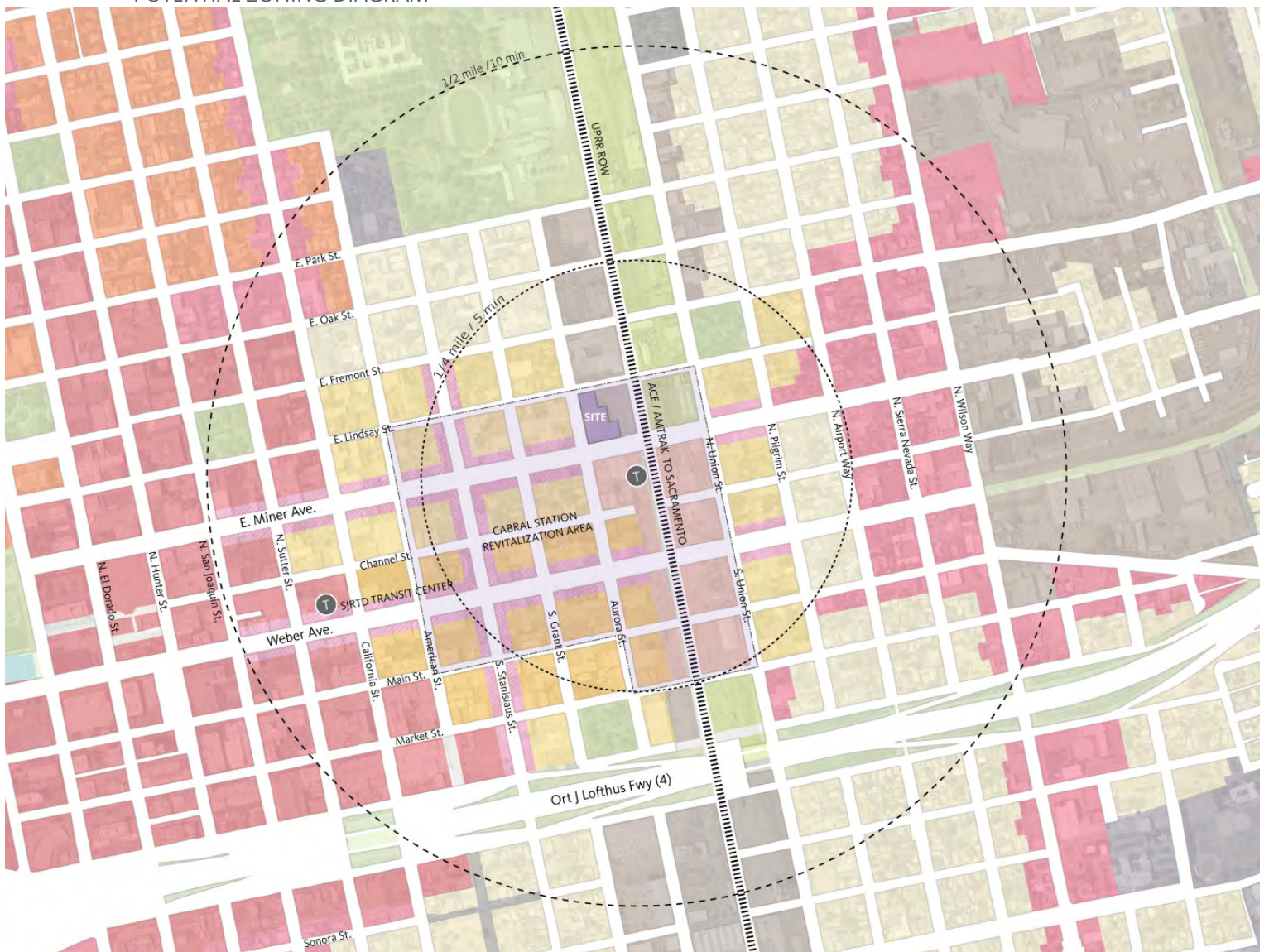
The associated diagram is a result of identifying key land uses in the Robert J. Cabral Station Neighborhood Revitalization Plan and the identifying land use intensities required to support transportation. When implemented, the result will create the rich quality of urban life described in this document. The Land Use Designation legend colors are identified in specific locations to tell the story of the neighborhood and the type of development desired in specific blocks or street frontages. The diagram is not intended be a TOD zoning map to be directly incorporated into the city general plan or as an overlay district. This effort would require transportation analysis, economic market research and programmatic negative declaration. These actions are beyond the scope of this report.

The implementation of a future Cabral Station TOD would be in the form of overlay district with an associated non-mitigated Negative Declaration to the EIR covering the Stockton 2035 General Plan. An overlay districts are typically developed in conjunction with the preparation of a comprehensive land-use plan. Careful consideration of economic impacts, natural impacts, and private rights should be exercised when using overlay districts. It is additional zoning requirements that are placed on a geographic area but does not change the underlying zoning. The overlay zoning districts established as established by the Stockton Municipal code provide “requirements for development and new land uses that are in addition to the standards and regulations for the primary zoning district, because of the important site, neighborhood, or compatibility issues unique to a particular area.”

Source: Stockton Municipal Code: <http://qcode.us/codes/stockton>

- Cabral Station Revitalization Area
- Commercial (General)
- Industrial (General)
- Open Space
- Residential (High Density)
- Residential (Medium Density)
- Residential (Low Density)
- Commercial (Office)
- Mixed Use

POTENTIAL ZONING DIAGRAM



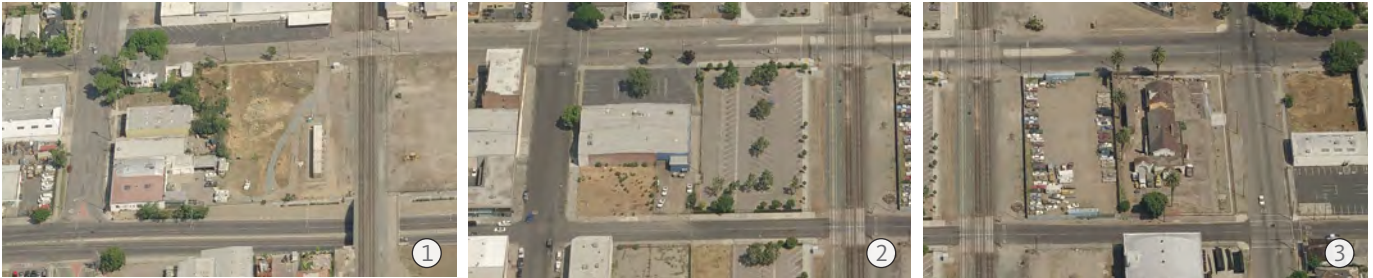
## 5.3 Land Banking

The second project phase as outlined in Section 1 is land banking. Typically parcels of land desirable for land banking are those that are in the growth path of rapidly developing urban areas. The initial goal is to buy undeveloped or underdeveloped land that will increase in value as a result of development. The investment objective is to identify these parcels in advance of the demand and hold the land ownership until a pre-established value has been realized. Another goal would be to protect land in a quarter mile radius of the Cabral Station to secure properties from low intensity non-TOD friendly uses. The last goal would be to acquire and assemble multiple properties in order to facilitate future development. These goals combined with current low property values in East Stockton underscore the importance of land banking in this current economic climate. The future sale of this land has a huge tax benefit: "Under Federal Transit Administration regulation for joint development, transit agencies may sell off surface parking lots, as long as they transform into transit supportive developments without having to pay back the federal treasury. This tax saving has the potential to cover 80 percent of the cost of building parking for rail systems".

Source: P.11 "Successful Development Around Transit" ULI 2003.

Parcels for land banking, which will ultimately be phased into ACE parking facilities will be located and identified in the following ways. The first method for locating parcels will be based on walk time from the station. Placing parking five to seven minutes walk from the station should be prioritized. This distance will allow the land nearest the station to be reserved for commercial, residential and mixed-use development. The second method is to locate parking adjacent to the train right of way. Building parking along the railway will provide a buffer to the residential uses and the parcels in these locations are available at a very low price point. The third method would be to identify locations that create a synergy with a use or organization to share in the parking resources with ACE. These locations will be adjacent to churches, schools, universities, and sports facilities. The fourth and final parcel locating method would be adjacent to primary roadways. An example of this would be at the intersection of Weber Avenue and Stanislaus Street. Stanislaus Street is connector street to the off ramp of Highway 4 and is identified in the Cabral Neighborhood Plan as a primary retail, mixed use street. Weber Ave is planned to be the new "main street" of Stockton. These combined attributes along with a seven minute walk time make the Weber-Stanislaus intersection an excellent land banking opportunity for both parking and as a real estate investment.





LAND BANKING DIAGRAM

- Primary Acquisition
- Secondary Acquisition
- Tertiary Acquisition
- Potential Land Banking



## 5.3.1 Site Acquisition Strategy

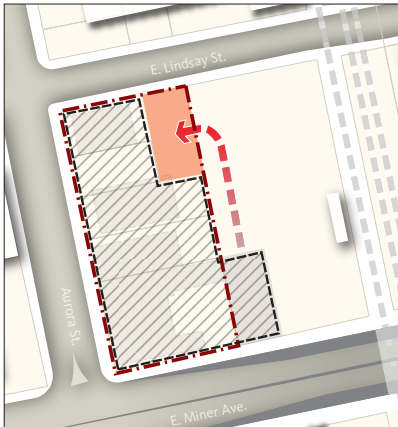
### Parcel Assembly to One Block Site

The primary proposed site is of an irregular shape on a corner plot of approximately 1.0 acre. Its irregular shape can potentially result in added cost to make it functional, as in the case of fitting a parking garage on site.

The swap, trading approximately 5,300 square feet of undeveloped land owned by Union Pacific and leased to Qwest Communication, would make the resulting parcel more flexible for planning and development.

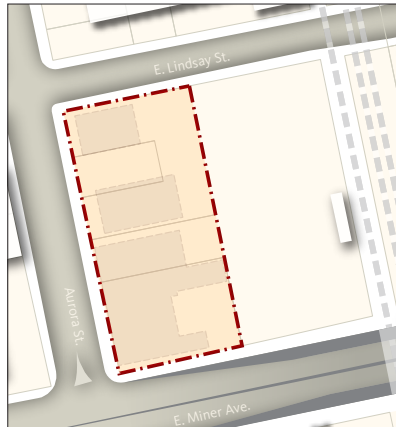
If Cabral Station serves as a multi-modal transit station to accommodate High Speed Rail and additional intercity passenger rail service, the site (whether it would be used for commercial, retail, residential, cultural/educational or parking) would benefit from an integrated development with the Qwest Communication site.

NOW



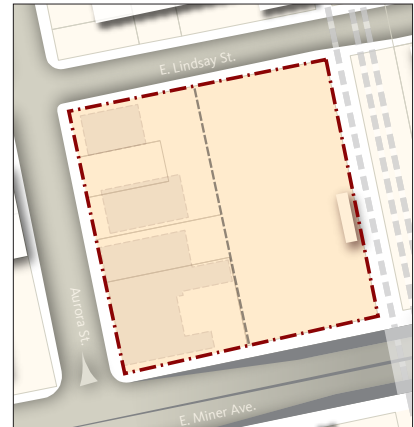
PARCEL ASSEMBLY

2010-2015



REGULAR-SHAPED SITE FOR FLEXIBLE PHASED DEVELOPMENT

2025



ACQUISITION OF FULL BLOCK FOR MAXIMUM PARKING PHASED USES

### 5.3.2 Site Implementation Strategy

The site acquisition strategy will need to consider a number of criteria including: proximity to the Cabral Station and potential to support TOD in the future; what level of protection from non-transit friendly uses is provided by the zoning that is in place, cost to acquire the property; potential interim uses; and financial implications of interim use strategy. Section 5.5.2 contains analysis of real estate conditions and evaluation of key economic considerations in relation to different land banking or interim use scenarios that could be implemented. The land banking scenarios examined include: a) acquiring property that contains existing buildings and then continuing to lease the property for its existing uses, until such time as economic conditions are conducive to redevelopment for TOD; b) acquiring vacant land and developing surface parking as an interim use until conditions warrant construction of replacement parking and other uses in a mixed-use TOD parking structure; and c) purchasing vacant land and developing an urban agriculture plot as an interim use. This third scenario may also be adapted as a public park instead of an urban agriculture use, with similar economic implications. As indicated in the memo, the different land banking scenarios range from potentially economically feasible under current market conditions (acquire and lease existing buildings), requiring at least partial public subsidy (construct surface parking), to requiring essentially 100 percent public investment with no anticipated return (urban agriculture or park). Following is a matrix summarizing the economics of the various interim uses as analyzed in Section 5.5.2.

	Purchase and Lease Existing Buildings	Purchase Vacant Land and Develop Surface Parking	Purchase Vacant Land and Develop Urban Agriculture or Park
Initial Purchase Cost/Acre Land	\$870,000	\$550,000	\$550,000
Costs to Develop New Use/Acre Land	n.a.	\$695,000	\$87,000
Total Investment/Acre Land	\$870,000	\$1,240,000	\$635,000
Potential Annual Return on Investment	5.8%	<1.0%	<1.0%

The results of the analysis have some interesting implications for SJRRRC. In terms of dollar outlay per acre of land that could be banked, purchase of vacant land may have a lower cost initially; however, considering the need to make improvements to support parking, urban agriculture, or public parks, then the total outlay per acre of land preserved changes significantly. Furthermore, when considering the limited (at best) revenue potential associated with surface parking or urban agriculture, or the expectation of no significant revenue potential associated with a public park use, purchasing existing buildings for interim lease becomes a more attractive option from an economic standpoint, at least initially, as indicated by the return on investment.

The initial economic evaluation for the different land banking scenarios favors purchasing existing buildings that could continue to generate lease income as an interim use. However, based on other considerations such as availability of funding for special purposes, SJRRC may under certain circumstances find it advantageous to acquire and use property for purposes that emphasize public benefits. For example, Section 5.5.1 contains a discussion regarding potential grant funding sources for different types of projects with public benefits. Should SJRRC be able to access grant funds to build public parking facilities, an urban agriculture project, or public park space, then this could significantly tilt the economic equation in favor of non-commercial land-banking activities. It should be cautioned that if SJRRC uses public funds to acquire property, changing the use in the future to a TOD use may require that SJRRC repay the source or replace the use for which the funds were originally granted.

Thus, it is recommended that SJRRC adopt a flexible land banking strategy that will allow the agency to opportunistically acquire property that may become available within the Cabral Station area. This strategy will require that SJRRC identify a source of flexible funding that could be accessed relatively quickly, to purchase property that may become available. For this approach, SJRRC may consider interim use of available fund balances that the agency controls, if allowable. Another option would be to partner with the City of Stockton Redevelopment Agency, to use Redevelopment Agency funds to purchase property, to then be sold to SJRRC once SJRRC can access grant funds or other resources. A third option, in the case of a commercial interim use scenario, would be to partner with a developer and use the developer's capital to purchase the property, with an agreement to utilize the property at some point in the future for a TOD development that would be developed collaboratively. In this case, SJRRC would need to make some sort of contribution of value to the transaction, such as contributing some equity that the developer could leverage with private debt or equity or offering some sort of commitment to assist with a TOD that would be developed at a later date.

In addition to lining up a source of flexible funds, the opportunistic acquisition strategy will also require that SJRRC Board and staff have agreement on the types of opportunities that staff can pursue, so that the agency can move relatively quickly to bid on and close transactions to acquire property without protracted discussions at the policy level that could make it impractical for sellers to entertain offers from SJRRC. In today's economic environment, there may be opportunities to acquire financially distressed properties at relatively affordable prices; however, in many cases there will be investor competition for the properties, and ability to close quickly may be a deciding factor in who is able to acquire the property.

Following are some considerations that SJRRC may also use in order to inform its site acquisition strategy:

- Properties closest the Cabral Station have the greatest potential for TOD development in the future and to support increased transit ridership; thus, they should receive high-priority consideration for acquisition so that SJRRC can more directly control their use in the future.
- Vacant land that is zoned for non transit-supportive uses poses a distinct opportunity for a developer to develop a use that might become economically prohibitive to acquire and redevelop as TOD for the next 20 to 30 years; thus, if appropriate zoning controls to prevent this type of development are not imminent, SJRRC should strongly consider acquiring such property if possible.
- Property that can be acquired for interim commercial use will generate a stream of revenues that can be utilized to offset property carrying costs such as maintenance costs, whereas property acquired for public benefit type of purposes will likely require that SJRRC allocate funding annually for maintenance and other carrying costs.

### 5.3.3 Potential Land Phasing Uses

Dependent on parking demand in the near and middle point in the project time line, portions of the site can be utilized as a phased use for the benefit of the local neighborhood, the ACE ridership and the greater city of Stockton. These interim/phased uses would be a benefit to the neighborhood in addition to enhancing the community character of the Cabral Station. Due to the flexibility and location of the site coupled with identified local need and the strength of the Central Valley agriculture industry, there are a few potential uses that seem most appropriate:

- Parks: Having youth soccer fields or small pocket parks would help activate the area while providing an opportunity for relaxation and recreation for the community.
- Community Supported Agriculture (CSA): Vacant lots are ideal locations for agriculture production. CSA is a way to create ownership over the growth and development of the land, both enriching the surrounding community while providing a means for healthy and sustainable food production.
- Farmers Markets: open land (in addition to surface parking lots) can be used to host farmers markets. This can help generate income while providing local sustainable produce to the community.



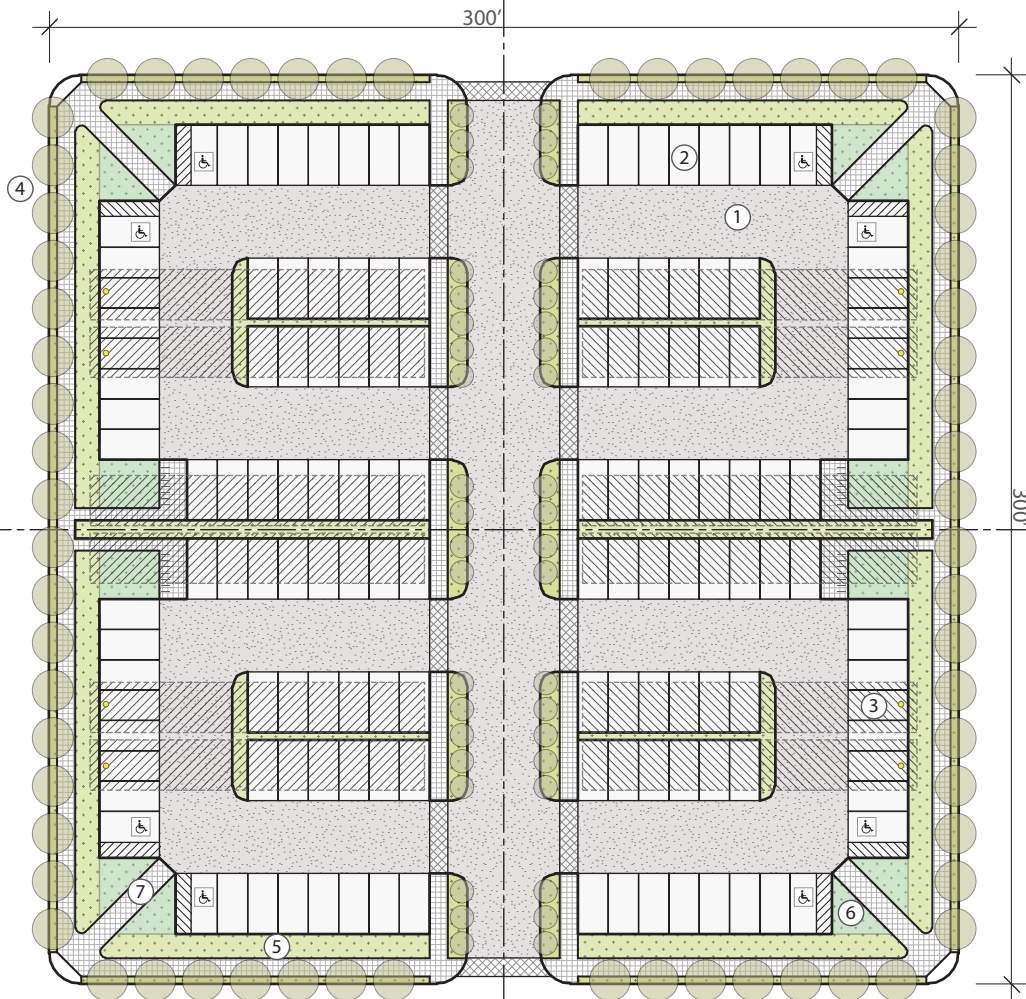
### 5.3.4 Prototype: The “Block Site” Approach

The location of the Cabral Station within an Industrial-Zoned development lends itself to parcel flexibility for parking, as much of the area is vacant or has structures that have been compromised from years of neglect. Many of these lots can be used for temporary or permanent surface parking. The following diagram shows a typical Stockton lot with dimensions of 300' x 300' and +/-144 stalls, with a prototypical layout independent of location. This prototype utilizes a set of design guidelines that can be executed across various locations. These are outlined in the following text. The number references correspond to the number system in the prototype diagram on the adjacent page.

- Adopt Low Impact Design (LID) practices wherever practical and support the making of community. LID increases the protection of ground water quality, as well as enhances the structure of the ecosystem and existing water bodies.
- High Albedo paving materials wherever possible. (1) This helps reflect light and heat which reduces the heat island effect and decreases lighting costs.
- Permeable Paving to parking stalls where ever possible. (2) Permeable paving allows water and air to move around material, which filters naturally into the soil. This reduces surface runoff, which leads to erosion and pollution.
- Potential solar/PV shade structures and electrical vehicle recharge stations at perimeter. (3) Parking lots are ideal locations to implement solar canopies, which will provide shading for the vehicles as well as energy generation to power site lighting and charging stations. Structures to include opportunities for public art/ community note boards/ lighting, etc.
- Street tree planting per city of Stockton guidelines. (4) The trees should blend with the surrounding context and be consistent visually.
- Use Community Supported Agriculture (CSA) wherever possible, with flexibility to expand parking in future. CSA is a great way to utilize open space while providing a venue for community interaction.
- Incorporate vegetated swales for water runoff quality control. (5) These bio-swales filter the pollutants that gather on roads and surfaces from storm water before it is able to reach natural water sources.
- Include rain gardens for water quantity control. (6) Excess water can be directed into a large gardens where it is absorbed instead of stressing storm water drains.
- Controlled lighting for security. Provide solar powered lighting to properly light the site without generating light pollution into the sky or outside the site.
- Control landscaping heights for security. Avoid dense, tall shrubbery.
- Possible community-based amenities include: potential temporary stalls for food trucks with proper hook-ups and seating area, bike storage, water and trash, centralized payment station, potential train display information repeater boards. (7) This will create a recognizable focal point and an area for community engagement.

- Rain Garden
- Vegetated Swale
- Solar Array (PV)
- Charging Station

PROTOTYPICAL PARKING LAYOUT



## 5.4 Design Options

### 5.4.1 Surface Parking

#### **Phase 3A: Half block surface parking and community amenity spaces**

##### PHASED IMPLEMENTATION FOR SURFACE PARKING

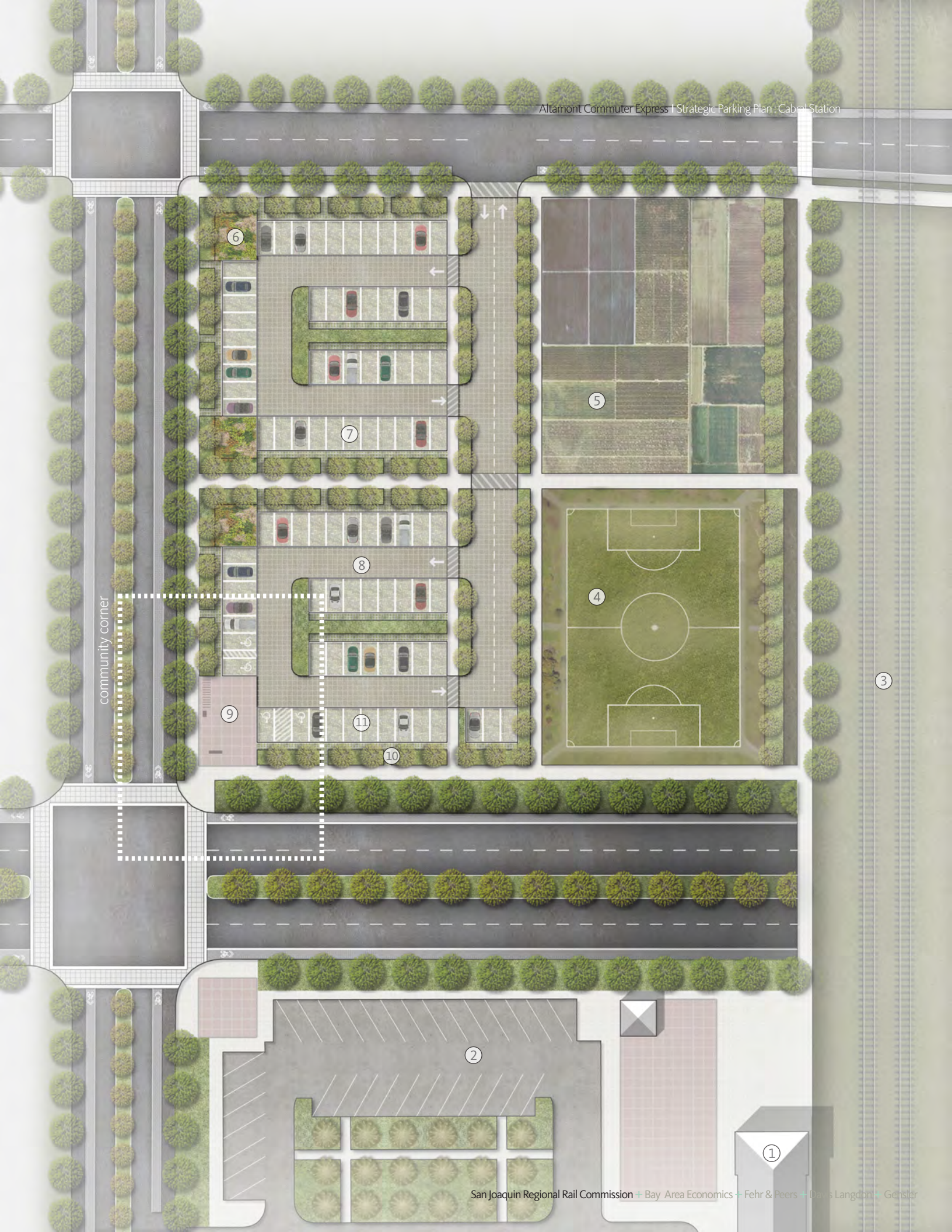
The parking design strategy utilizes a modulator system. A city “one block” site is used as the base unit due to the consistent 300' x 300' block grid in downtown Stockton. A one block site is divided into four equal quadrants. This approach allows maximum flexibility, responding to parking demands over a period of time. Parking can be added in a logical and sequenced manner. For example a constructed half block site is seen in the adjacent parking illustration. This half block would yield 94 stalls. A full block build would yield 190 stalls. Alternately if there was demand for more spaces then could be provided by a full block build of surface parking then structured parking could be utilized. The structure parking option, as seen in Section 5.4.2, would yield 284 spaces. Structured parking and surface parking could be mixed easily with this design approach.

A Direct Ridership Model (DRM) was created by Fehr + Peers to study parking demand by the ACE ridership. This model projected the parking demand for three points in time: now, 2015 and 2025. They recommend a modest increase of parking supply now, 342 spaces in 2015, and 420 spaces in 2025. While the phased block design does not directly accomplish the number required in 2015 or 2025, the design can deliver the approximate amount of required space. The block design prioritized rider friendly amenities, sustainable landscapes and inner-site pedestrian connections over achieving the highest possible parking yields on the site. The efficiency and thus the ultimate parking yield can be increased if required.

#### **PHASE 3A DEVELOPMENT** **[Surface Lot + Amenities]**

1. Robert J. Cabral Station
2. Cabral Station Neighborhood Area Plan
3. UPRR Right of Way
4. Flexible park space / recreation fields
5. Community Supported Agriculture (CSA)
6. Rain garden
7. Pervious paving parking stalls
8. Pervious and high SRI drive aisles
9. Site entry / Community Corner
10. Vegetated Swales
11. Optional solar array with connection to car charging stations.





community corner

### SURFACE PARKING

The first phase for delivering new parking to Cabral Neighborhood can be derived from a horizontal solution, namely surface parking. The initial parking demand increase as estimated by the Fehr & Peers DRM is a “modest amount now and 342 spaces by 2015” (Source: Section [3.1.4] Table 3: Transit Sustainability). It is therefore beneficial to adopt a one block modular system where the addition of parking spaces is scalable and can be added without disturbance to the existing parking spaces. The surface parking illustration on page 5.32 details half of the site occupied by surface parking, at a parking yield of 94 stalls, with the balance occupied with community-serving amenities. The land banking described in the first project phase will come with the additional benefit of existing parking spaces on the acquired parcel. These parking spaces can be used as expansion space for ACE parking and will offset the parking space number estimated by the Fehr & Peers DRM.

### URBAN DESIGN PRINCIPLES

The surface parking option has considered all of the Urban Design Principles. The Urban Design Principles, as listed in Section 5.1.1 are implemented in the following ways. Pedestrian connectivity is accomplished through a sequence of green, socially programmed open spaces. The spaces flow from the transit plaza at the Cabral Station to the “community corner” located at the intersection of Miner Avenue at Aurora Street and along the west and south edges of the project site. The community corner captures the Social Space Principle. It features an area for a food truck with movable tables and chairs. This is also the location of rider amenities such as an ACE branded schedule board for train service, bike parking, and the parking payment area. The ACE schedule board is a tall pylon prominently located at the road intersection which supports the Identity principle. Finally is the edge treatment of the parking site with vegetated swales. The swales break down the “block” sized site, make the experiences feel natural, and create a people friendly place.

### SUSTAINABILITY

Each design option has considered all of the sustainability principles; however, some of the implementation strategies differ between the surface parking option and the structured parking option. In the surface parking option, the plant selection and planning for no irrigation is particularly important because there will be a significant amount of vegetated area. Stormwater would likely not be collected for reuse but directed into vegetated swales for treatment and infiltration. The main consumers of energy are the lights and pay stations. The proposed PV array is estimated to generate significant surplus power, approximately 1,300 kwh/day. This could accommodate about 50 electric vehicle charging stations.

## IMPLEMENTATION

As indicated in Table 1 of Section 5.5.2, based on available information on property sales in the downtown Stockton area, BAE estimates the cost to acquire vacant land at approximately \$550,000 per acre. The parking design firm of Davis Langdon has estimated the cost per square foot to develop vacant land for parking at approximately \$15 per square foot. Incorporating a 25 percent allowance for various soft costs (project administration, design, financing, etc.), BAE estimates the total cost per acre of parking at approximately \$1.2 million, or \$16,334 per space. Based on current conditions in the Cabral Station area, it would be assumed that the parking would be developed as free commuter parking, meaning that there would be no offsetting parking revenues, and there would be annual maintenance costs in addition to the initial acquisition and capital improvement costs. Thus, if developed in the near term, surface parking would require dedicated funding sources with no expectation of return on investment.

Given limited unmet parking demand at the current time, and limited potential increases in demand in the near term, BAE does not recommend development of additional parking facilities at this time. Table 3 of Section 5.5.2, Economics of Surface Parking, shows the monthly parking pass rate that would need to be achieved in order to achieve a six percent return on investment for a surface parking project. Thus, one indicator of when SJRRC might find it attractive to acquire land and building additional surface parking would be when market conditions in the station are such that monthly parking rates of approximately \$100 per stall would be achievable. Monthly parking spaces in city-owned downtown parking facilities range from \$45 to \$71; however, these rates do not necessarily reflect market rates, as they are subsidized by property taxes paid by downtown properties that are located within the Central Parking District. This is the range of parking rates quoted for city of Stockton Central Parking District lots A, B, F, J, K, and L. Alternatively, if SJRRC is able to obtain grant funding from sources such as those discussed in Section 5.5.2, then depending on the proportion of costs covered by grant funds, SJRRC could consider building surface parking facilities when lower monthly parking fees could be collected.

# 05

Site & Design | Urban Design Principles + Sustainability Principles





**Community Corner:** Providing a place for public interaction.

The southwest corner of the site, with its proximity to the Cabral Station, would be an ideal location to provide community-based amenities. These amenities would engage both local residents as well as patrons of the parking and rail facilities. Offering conveniences, like pay machines and train reader boards, would benefit the commuter. Also, easily accessible bike racks would promote a healthier means of transportation. Locating a mobile food truck with seating would activate the corner and give a busy, interactive character to the area.

**PHASE 3A DEVELOPMENT**  
[Community Corner Detail]

1. Pedestrian access to Cabral Station
2. Grade separated bike lane
3. Vegetation on existing embankment
4. Train display information / reader boards
5. Food truck with seating
6. Parking pay station
7. Bike racks
8. Site lighting
9. Waste bins (compost/recycling/waste)
10. PV solar array with connected charging stations
11. Vegetated swales

### Phase 3B: expansion to full block surface lot

#### USING A MODULAR SYSTEM THE ENABLES FLEXIBILITY

The “one block” site easily divides into modular sections allowing for the flexible, phased construction of parking spaces over time . If a structured parking lot is not deemed viable due to user demand or economic conditions, the surface lot can be expanded to cover the entire lot. Expanding to a full block of surface parking would double the amount of parking to roughly 190 spaces. The layout would be mirrored around the central entrance/exit drive aisle. This provides minimal impact to the constructed parking spaces and the day to day operation of the existing parking operations.

#### PHASE 3B DEVELOPMENT

##### [Full Surface Lot]

1. Robert J. Cabral Station
2. Cabral Station Neighborhood Area Plan
3. UPRR Right of Way
4. Rain garden
5. Pervious paving parking stalls
6. Pervious and high SRI drive aisles
7. Site entry / Community Corner
8. Vegetated swales
9. Optional solar array with connection to car charging stations



## SURFACE PARKING MATERIALS

**Photovoltaic Array**

A photovoltaic (PV) solar array can be beneficial to the site for many reasons. The large canopy provides shading for the vehicles that are parked for long periods of time. The large panels can generate significant amounts of energy that can be used for all of the site needs, including lighting, electric car recharging, and pay stations. Parking lots are ideal candidate for large arrays, and have potential to generate energy for the surrounding buildings. The panels and supporting structure can be disassembled and relocated if the function of the lot changes over time.

**Pervious Pavers**

A variety of material can be used to create a paver system. The gaps in between pavers allow water to flow freely into the ground, reducing stormwater runoff and controlling surface pollutants. The pavers used for parking stalls should be durable, with a high albedo to reduce surface temperatures. Pavers are also easy to maintain, and have the ability to be relocated should the surface parking lot be converted into a different use. Decorative pavers should be used for highly used walkways and places of interest.

**Green Pavers**

These open cell pavers are similar to the pervious paver system employed in the parking stalls. These reinforced green pavers can add a strong aesthetically pleasing transition between stall and vegetated swales. This area will be used for added convenience for pedestrian access to their vehicles. The properties are similar to non-vegetated pavers, but are used in areas of less traffic and where plant life can flourish. If sunlight is inadequate, green pavers can be replaced with the stall pavers.

## SECTIONAL VIEW: Internal Parking Spaces







### Pervious Asphalt

Pervious asphalt and concrete is similar to regular asphalt and concrete, but does not use the finer aggregate in the mixture. This allows for small holes and gaps that allow water to pass through. This material should be light in color to reflect heat rather than absorb it. Although there are some upkeep issues, this technology is constantly improving. If economically feasible, the drive aisles of the surface lot should be interlocking pavers, similar to the parking stalls, to allow for reuse should the site use change. Similar to other locations, all pavers should be ADA compliant.



### Vegetated Swales

Vegetated swales help collect runoff from paved surfaces, and control the quality of water that flows to lakes and streams. As water flows into the swale, the plants act as a filter for many of the pollutants that are generated by vehicular use. The treated water then follows traditional paths of stormwater movement before entering a water body. Vegetated swales provide necessary landscaping to the site while being an important part of Low Impact Design and adding a visual buffer between walkways and parking.



### Rain Gardens

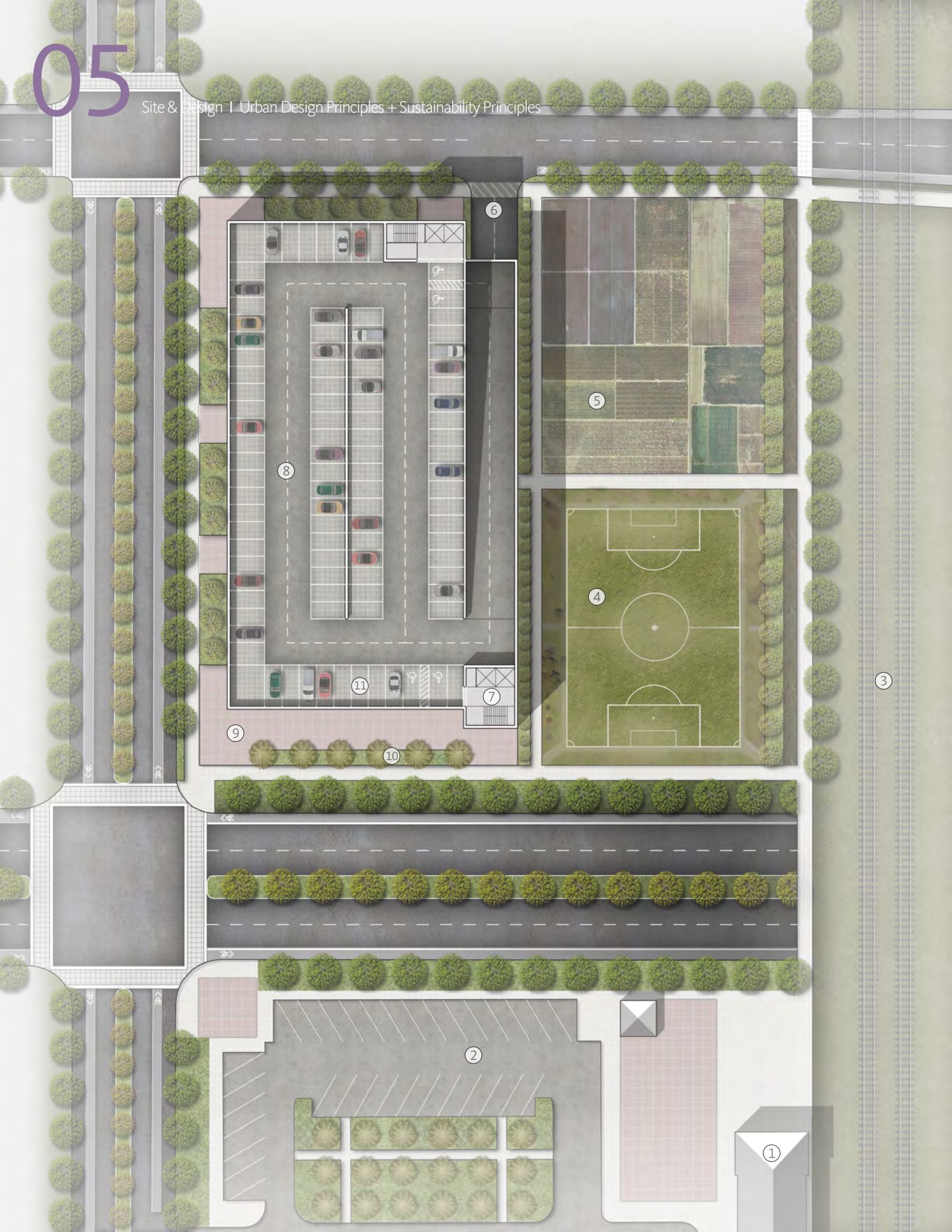
Whereas swales are implemented for stormwater quality control, rain gardens are used for stormwater quantity control. Rain gardens lessen the burden on the existing stormwater drainage system by collecting and absorbing excess water. This helps avoid erosion, flooding, polluted ground water, and a lack of surface water. They also provide an enjoyable aesthetic to the parking area. These gardens can be connected to the surface streets surrounding our site to alleviate the burden on surface drainage.

## SECTIONAL VIEW : Parking Lot Edge Condition



# 05

## Site & Design | Urban Design Principles + Sustainability Principles



## 5.4.2 Structured Parking

### Phase 4A: Half block of structured parking community amenity spaces

#### PHASED IMPLEMENTATION FOR STRUCTURED PARKING

The Fehr & Peers DRM estimates are for “420 spaces in 2025.” This parking demand would be the approximate tipping point implementation of structured parking in the “one block” site design. The structure is intentionally located within one half of the site with the ramping drive aisle located in the center of the site. When local need and ACE ridership parking demand reach a level that requires additional parking, the structure can be mirrored along this center aisle to provide increase capacity. The expansion time would mostly likely coincide with a substantial build out of a TOD or the incorporation of HSR services at the Cabral Station. The second phase structured parking would be void of ground floor retail; the numbers of additional spaces will more than double, resulting in a total of 662 stalls. The option to increase parking density will be useful when the High Speed Rail stop is established in Stockton within the vicinity of Cabral Station.

#### PHASE 4A DEVELOPMENT [Parking Structure + Amenities]

1. Robert J. Cabral Station
2. Cabral Station Neighborhood Area Plan
3. UPRR Right of Way
4. Flexible park space / recreation fields
5. Community Supported Agriculture (CSA)
6. Parking structure entry / exit
7. Vertical Circulation
8. Flat parking plates
9. Community Corner / plaza
10. Vegetated swales
11. Optional solar array with connection to car charging stations.

### STRUCTURED PARKING

The second construction phase in addressing the parking needs of ACE can be derived from a vertical solution, namely structured parking. The parking capacity demand that would be the tipping point in the shift from horizontal to vertical solution would be approximately 350 spaces. The parking estimates by the Fehr & Peers DRM are for “342 spaces in 2015 and 420 spaces in 2025.” The principles of modularity remain in the structured parking option. The focus is on minimal site disturbance and ease of construction/expansion. The current structured parking option generates roughly 38,000 gross square feet of retail on the ground floor with three levels of parking above at a parking yielding of 284 stalls. The layout retains the community-based amenities of CSA and the sports field while providing much needed community based retail services at the ground level.

### URBAN DESIGN PRINCIPLES

The structured parking option has considered all the urban design principles. The urban design principles are implemented in the following ways. The Social Space Principle is found in an expanded community corner stretching the entire length of the of both the Aurora Street and East Miner Avenue street frontages. The public gathering space will be filled with public seating, café table and chairs bringing excitement and energy to the public pedestrian realm. The Scale Principle is incorporated by the building massing, which at four stories is proportional to the surrounding neighborhood buildings. The height of the structure's southern elevation forms a visual closure to the new constructed Cabral Transit across Miner Avenue. The Architectural Intent conveying community character is captured in the super graphic text on the south building elevation. The text will be messaging chosen by the neighborhood. This is complemented by the building naming “ACE Parking at Cabral Station” and strongly identifying the ACE brand. Sustainability leadership is displayed through the placement of the tree like PV prominently overlapping the roof edge and by the living, vegetative screen wall wrapping the structures public faces.

### SUSTAINABILITY

Each design option has considered all of the sustainability principles, however some of the implementation strategies differ between the surface parking option and the structured parking option. In the structured parking option, there will be relatively little area for planted swales, and stormwater would be managed in a different way than in the surface parking option. The design has the potential to harvest and treat more than enough rainfall for reuse in toilet flushing or irrigation of adjacent sites. Based on an occupied ground floor, about 14,800 gallons of water will be needed for flushing per month, or about 2,000 cubic feet. In the structured parking option, the main consumers of energy will be the occupied uses on the ground floor, especially grocery store space. It will be very important to employ energy conserving strategies, such as daylighting, natural ventilation, and high-performance glazing. The proposed PV array is estimated to generate about 1,800 kwh/day. This could provide all of the energy needed for parking lighting plus 60-70 percent of the energy needed for the ground floor. Alternatively, if charging stations are prioritized, the PV array could power all of the parking lighting and about 50 electric vehicle charging stations.

## IMPLEMENTATION

Due to the high cost of construction for structured parking, BAE assumes that SJRRC will not invest in developing structured parking until economic conditions in the Cabral Station area are such that it will make financial sense to do so, which is typically when increasing land costs make structured parking more affordable relative to purchasing land for surface parking lots. From a transit agency's perspective, structured parking can be an effective means to reduce the separation of TOD uses by surface parking areas, making an area more pedestrian friendly for people who want to access the transit station; however, the effect of structured parking costs on financial feasibility for TOD projects needs to be considered.

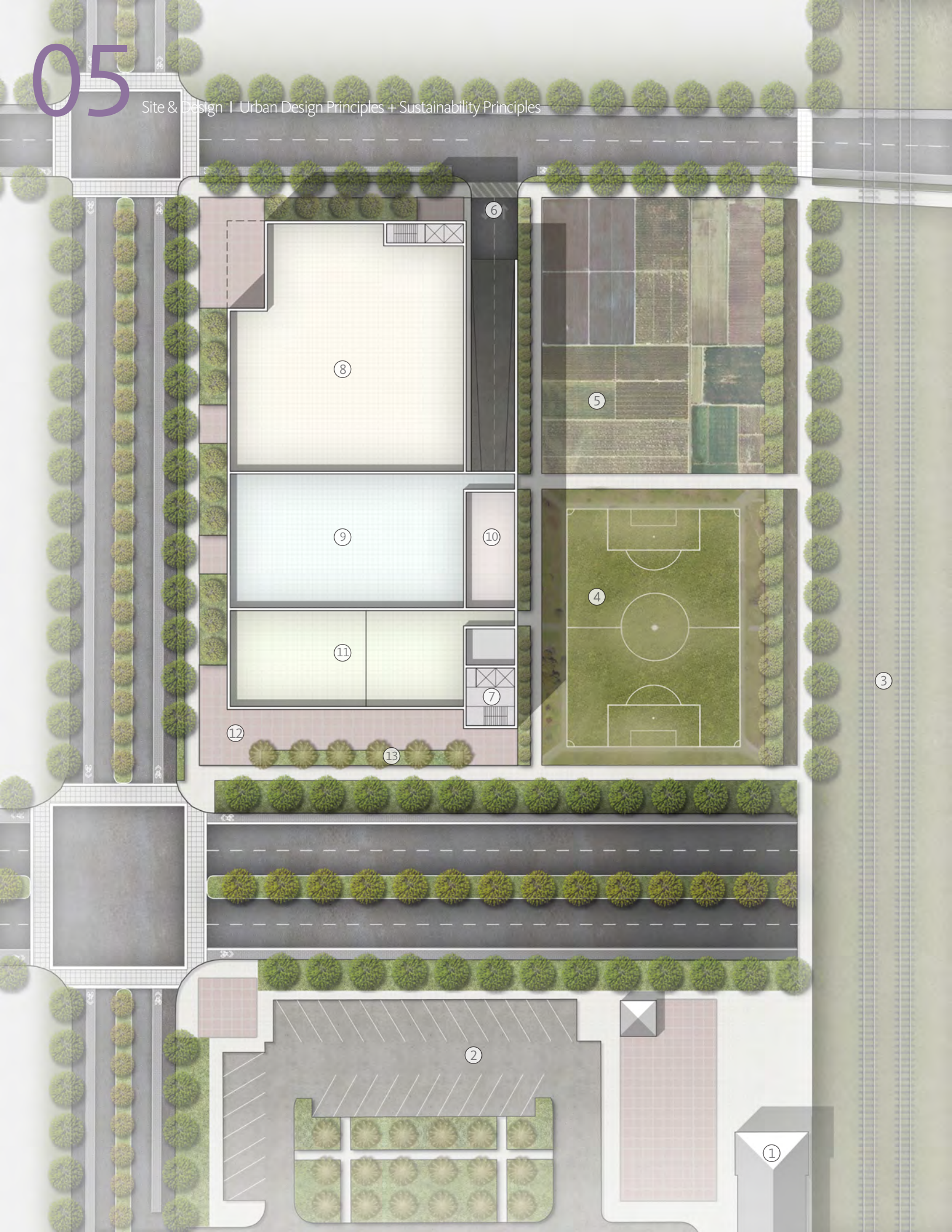
Tables 7 and 8 in Section 5.5.2 contain a rough pro-forma development feasibility analysis for a retail development with structured parking to accommodate both the retail use and transit users, as described in 5.4.2. The purpose of this pro-forma analysis is to explore development feasibility and the economic conditions under which such a facility might feasibly be built in the Cabral Station area. The development that is modeled would occupy approximately one acre of land, and it would include approximately 38,200 square feet of retail space and approximately 284 structured parking spaces. One hundred fifty-three of the parking spaces would be allocated to the retail component of the project, based on city of Stockton development standards, meaning the balance of 131 spaces could be allocated to transit users.

Based on the development assumptions shown in Table 7 of Section 5.5.2 and the calculations in Table 8 the retail component of the project could be feasible if the retail shell component would command monthly triple-net rents of \$1.92 per square foot. The tenant would absorb the cost to fully build out the interior with desired tenant improvements. Section 5.5.2 notes that this lease rate is actually below the asking lease rate for newly renovated commercial space in the Hotel Stockton, which has an asking lease rate of \$2.00 per square foot. The Hotel Stockton enjoys a much more visible location that is more central to the core downtown business area than Cabral Station, yet the space remains vacant two years after it was initially offered for lease. Furthermore, the rough pro-forma calculation does not make allowances for any inefficiencies in the model building, such as common areas or other non-leasable area that would reduce the net income potential. Offsetting this to a limited degree is the fact that the rough pro-forma does not incorporate assumptions about monthly permit parking income from retail employees, or hourly parking revenues that retail customers might pay for the parking.

Taken as a whole, the development pro-forma suggests that development of a retail project that incorporates structured parking might be feasible when conditions in the Cabral Station area are such that there is demand for the commercial space at what would be considered premium levels in the current market. Consistent with the development phasing concept described elsewhere in this document, these conditions are not likely to be realized until the medium or long term. Additionally, it is assumed that SJRRC and its development partners would access a separate source of funding to pay for the portion of the parking structure costs that are attributable to transit users. This could include financing a portion of the parking structure costs with the income that could be generated from monthly commuter parking permit sales and from hourly parking fees charged to users. Other financing might come from one or more funding sources discussed in Section 5.5.1.

# 05

## Site & Design | Urban Design Principles + Sustainability Principles



## Ground Floor Mixed Use: Community Based Retail and Commercial

The mix of businesses should be supportive of both the Cabral neighborhood and ACE rider community. Identifying businesses that have a synergy of needs for both groups will foster economic viability and increase the potential for business success. In section 2.1.5 of the BAE's Economic Sustainability report, primary market research has found that "there is a limited selection of neighborhood amenities within the easily walkable, neighborhood scale of one-half mile from the Cabral Station. This provides a starting point to develop a neighborhood that is supportive of TOD; however, ideally, there would be a greater concentration of neighborhood amenities in close proximity. Building the concentration of neighborhood amenities should be a priority for SJRRC and the City of Stockton over time, to make the neighborhood successful and attractive for TOD over the long-term. This would include additional convenience retail, along with a range of restaurants and everyday services within easy walking distance of the Station Area. Along with an analysis of business types desired in the study area, BAE also assessed business viability in terms of built area. "Given the relatively small size of the site initially targeted for mixed-use TOD, and given the pioneering nature of such an effort in the Cabral Station area, the near-term development plans should be kept relatively...10,000 square feet of retail space, and no more than 10,000 to 15,000 square feet of office space should be considered." The business type and business areas identified on the adjacent ground floor illustration are in alignment with the BAE market research.

### PHASE 4A DEVELOPMENT [Ground Floor Plan]

1. Robert J. Cabral Station
2. Cabral Station Neighborhood Area Plan
3. UPRR Right of Way
4. Flexible park space / recreation fields
5. Community Supported Agriculture (CSA)
6. Parking structure entry / exit
7. Vertical circulation
8. Community Grocery Store
9. Child Care
10. Bike Storage / Repair / Showers / Lockers
11. Restaurant / Cafe
12. Community Corner / Plaza
13. Vegetated Swales

#### COMMUNITY GROCERY STORE (8) +/- 14,000 GSF

The grocery store should be health-based providing raw and organic food products. The food produced should be sustainably grown and sourced locally or within a 500 mile limit. The retail concept for the store related to the community should follow the Healthy Cities Initiatives and the complete Neighborhood principles detailed in section 4.4.3.

#### CHILD CARE (9) +/- 8,000 GSF

The importance of accessible, safe and affordable child care is a concern to both the neighborhood residents and the ACE ridership. A benefit to the location of child care business is direct access to the adjacent recreation/sports field two of the identified interim land uses. In a study on children, parents, transit and quality of life, MTC had these recommendations:

- The route between the child care and the transit should be within approximately one third of a mile, and should be perceived to be safe and pedestrian friendly.
- Land used by facility should be provided at low or no cost to the child care providers.
- Promote "Guaranteed Ride Home Programs." This program could be accomplished through the locating of care share programs at the ACE parking facilities. ACE should investigate a discount program for users of both a car share program (e.g. ZIP Car) and the ACE train system.

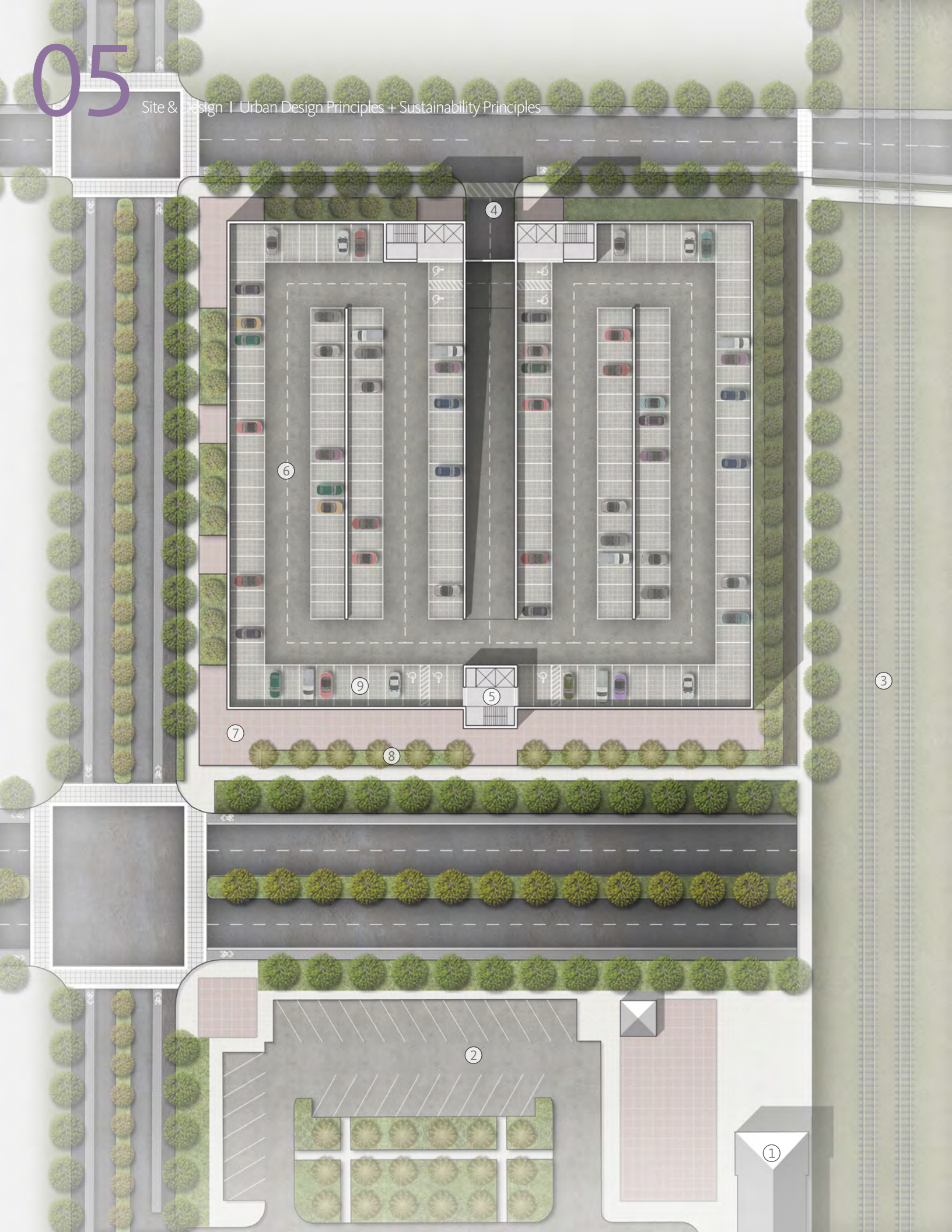
Source: P 28 "Child Care and Transit"; MTC.

#### RESTAURANT / CAFE (11) +/- 6,000 GSF

The retail concept should be "community dining." A place that is family friendly and culturally specific to the neighborhood residents. Hours of operation should support the early morning ACE rider and the evening socializing of the neighborhood resident. There should be options for both sit down as well as take away facilities.

# 05

## Site & Design | Urban Design Principles + Sustainability Principles





## **Phase 4B: Full block of structured parking**

### PLANNING FOR HIGH CAPACITY PARKING

The mixed-use structure is located within one half of the ACE station. The ramping drive aisle located in the center of the site. Should user demand require additional parking, the structure can be mirrored along this center aisle to provide the additional parking. As the second phase of construction in structured parking, this phase would be void of ground floor retail, the number of additional spaces is more than doubled, resulting in a total of 662 stalls. This could prove advantageous should the High Speed Rail connect directly to ACE in Stockton within the vicinity of Cabral Station.

#### PHASE 4B DEVELOPMENT [Structured Parking]

1. Robert J. Cabral Station
2. Cabral Station Neighborhood Area Plan
3. UPRR Right of Way
4. Parking structure entry / Exit
5. Vertical Circulation
6. Flat parking plates
7. Community Corner / Plaza
8. Vegetated Swales
9. Optional Solar Array with connection to car charging stations.

**Architectural Character:** reinforcement of urban design principles

The goal of the architectural design of the project is to assemble a “Third Place” in East Stockton and the Cabral neighborhood. The Third Place is a term used by Ray Oldenburg in the concept of community building to refer to social surroundings separate from the two usual social environments of home and the workplace. Architecture has the ability to reinforce the urban fabric and influence social behavior. The architectural design as seen in the below concept image creates a place that is responsive to its historical context though massing and scale while creating a contemporary, interesting structure. The aesthetic of the building emphasizes the idea that ACE is a sustainability leader. The commitment to sustainability is “put on display” in the design through the material selection on the exterior skin and the energy producing PV systems. The ACE brand is strategically placed on the building corner. This acts to reinforce the idea of ACE’s stewardship in the betterment of the Cabral neighborhood community. The mixed used community focused businesses with adjacent exterior gathering spaces support the social interaction of community residents and ACE riders.

## CONCEPTUAL RENDERING OF STRUCTURED PARKING





Alexandria Parking Garage : Gensler



Santa Monica Parking Structure : MRY



Mission Bay Lot 27 : WRNS



Claremont Village MU Parking Structure : WRNS



Claremont Village MU Parking Structure : WRNS

## Building Form

### CONTEXT

The Cabral Station neighborhood consists of small commercial, industrial, and residential buildings built within the last half century. Many of the original structures gave way to auto-focused service businesses which are in various states of disrepair. There are a few historically significant homes and buildings scattered throughout; however, very few within proximity to the station. Although heavy redevelopment is needed, there are cues from the surrounding environment that influence the design of the structure. Industrial aesthetics using masonry and metals, with a very clear separation of building function and space, is evident in the surrounding buildings.

### SCALE AND ORIENTATION

Providing an appropriately sized structure that can both provide the necessary parking capacity while maintaining a human scale is important. The structure should be sensitive to the local residential buildings by limiting the height and visual weight of the building. The structure should be sensitive to its environmental orientation and use shading devices where required. Recessing the ground floor from the facade helps break down the scale of the building while visually activating the retail areas.

### MATERIALS / SUSTAINABILITY

The structure should provide a functional transparency that allows every use in the building to be celebrated. Material use is important in giving the structure a vocabulary. Parking structures should use cost-effective, visually interesting materials that tie the building into the local context, without seeming oppressive. The facade treatments should filter light and air into the structure, with some visual openness, while calming the weight of the building. This can be done using perforated metal screening and green walls. All materials should possess sustainable attributes such as local sourcing where, manufactured from rapidly renewable resources, recycled content, ability for reuse, and high levels of energy performance.

## Building Use

### PLACE MAKING

The structure should be programmed to engage the community and activate the street. Providing a mixed use program on the ground floor will draw people to the site, creating a small gathering area adjacent to the structure will promote interaction and reinforce project identity. This building should be seen as a thread in the community fabric, with amenities that benefit both the rail commuters as well as the surrounding residents. It can be used as a center for community engagement and help spur the redevelopment of the surrounding area.

### FLEXIBILITY

The site and neighborhood should be expected to evolve and change over time. Planning for these changes is important to consider during initial design. The structure should be created in a way that allows adaptability and flexibility. For parking structures, using flat plates instead of ramped plates allows for future repurposing of the building. If demand for parking changes after construction, the core and shell of the structure can be used for a residential or mixed use application.

## 5.5 Economic Strategy

This section explores the financial implications of an interim land banking strategy and evaluates the potential returns from eventual disposition of the land-banked property for mixed-use TOD development. To examine the options for Land Banking, the analysis below evaluates a number of factors, including cost to acquire land for land banking in the vicinity of the project area, and potential economic uses for the banked land during the interim, such as parking, community supported agriculture or parks, or the continuation of existing commercial uses. Then, to explore the outlook for disposition of the banked land in the future for mixed-use and parking development, a simple financial model is presented to evaluate the potential financial feasibility of a prototypical project.

### 5.5.1 Economic Strategy: Cabral Station TOD

#### OVERALL FUNDING STRATEGY

The overall funding strategy for the Cabral Station TOD will most likely need to incorporate public funding in addition to private financing. Implementation of the project is envisioned to occur over an extended period of time, as the rail system develops and expands, and as market conditions in downtown Stockton evolve to a point where higher density mixed-use development becomes economically viable. During this extended implementation period, the function of the project will also evolve, from land banking and transit-supportive uses such as parking and pedestrian/accessibility improvements to a full mixed-use TOD project. Because of this, funding utilized in the early stages of the project in particular should be flexible to allow this range of uses over time.

The experience from the American Recovery and Reinvestment Act stimulus funding as well as from recent ballot-approved state bond measures has shown that project readiness has been a key factor in recent major funding opportunities. Projects that have gone through their planning and pre-development processes to the greatest extent possible have generally been most competitive for these types of grant programs. By establishing a plan for a Cabral Station mixed-use TOD project, SJRRC is positioning the project for future funding opportunities that may arise. It will be important for SJRRC to stay abreast of upcoming funding opportunities from State and federal sources, to be able to take advantage of funding programs that give relatively short periods of time to respond to NOFAs (notices of funding availability).

Additionally, the process of accessing State and federal transportation funds for capital projects, including funds that could assist with several different elements of a mixed-use TOD project, are typically part of multi-year planning and funding processes that are coordinated by SJCOG. To access these funds, it will be important for SJRRC to identify projects that it wishes to position for federal funding and work with SJCOG staff to include these projects in the regional transportation planning processes. Effective advocacy for SJRRC projects to be given high priority will also be important, as there are inevitably more project funding needs than can be programmed for the limited available funds.

## FUNDING FOR LAND ACQUISITION/BANKING

An initial challenge for SJRRC will be to identify and secure a flexible source of funding to use to acquire property for interim use and land banking. In 2006, San Joaquin county voters approved renewal of Measure K, which is a half-cent sales tax measure for transportation projects within the county. This included funding for ACE service expansions. SJRRC should explore the possibility of accessing Measure K funds on an interim basis for land banking purposes, with the understanding that the land would be utilized for a mixed-use TOD project that ultimately would be designed to support expanded ACE operations. Additionally, SJRRC could seek to partner with the city of Stockton Redevelopment Agency to acquire key property using Redevelopment Tax Increment funds. Finally, SJRRC could seek to utilize federal transit funds previously secured by SJRRC for transit purposes, for land banking in the interim, and for TOD mixed-use development in the future. The Federal Transit Administration states that “most FTA funding programs can be used for capital projects that support TOD” (Source: [http://fta.dot.gov/publications/publications\\_11007.html](http://fta.dot.gov/publications/publications_11007.html)). Real estate acquisition, demolition, site preparation, building foundations, utilities, walkways, open space, parking, pedestrian and bicycle improvements, and other TOD project features are listed as potentially eligible activities. SJRRC would most likely work with SJCOG to include the project in its federal transportation funding plan; however, it is also possible that such a project could be included in an earmark that would be included in the periodic re-authorization legislation for federal transportation funding.

SJRRC should also investigate funding opportunities in conjunction with the California High Speed Rail project. With Cabral Station identified as a potential High Speed Rail stop, this could create the need for substantial property to accommodate the infrastructure and improvements that would be associated with bringing High Speed Rail to Cabral. There may be opportunities for SJRRC to collaborate with the High Speed Rail Authority for planning to acquire land and develop it with TOD and other facilities in support of the High Speed Rail service. Proposition 1A authorized bond funding for right-of-way acquisition for the High Speed Rail project itself, and it also included \$950 million for improvements for commuter and intercity rail systems that will connect to the High Speed Rail system.

#### FUNDING FOR PUBLIC PLAZA AND RELATED TRANSIT AMENITIES

The development of a TOD project will typically include some form of pedestrian plaza or other feature that provides a linkage between the development project and the transit station. While some of the costs of such improvements might be borne by the private development component of a TOD project, it would help to improve project feasibility if certain qualifying improvements can be funded with public grant monies. Regionally, the San Joaquin County Measure K-funded Smart Growth Incentive Program can provide funding for such features as landscaping, pedestrian bridge, pedestrian plaza, or similar features that improve the usability and accessibility of the train station area for transit passengers.

Federal transportation funding under the SAFE-TEA LU legislation sets aside funds for the Transportation Enhancements Program. This program funds bicycle and pedestrian facilities and landscaping and other scenic beautification. SJRRC would apply for this funding through SJCOG.

Another funding opportunity is the State Housing Related Parks Program, which provides funding for parks in exchange for development of housing affordable to lower-income households. Such funding might be used to pay for public open space that would be included in a TOD project. The base grant awards are \$500 per bedroom for low-income units and \$750 per bedroom for very low-income units. In addition there are a number of different per-bedroom bonuses ranging from \$100 to \$250 each for projects offering units affordable to extremely low-income persons; for infill projects; for disadvantaged communities; and for infill supportive facilities. Initially, it appears that a mixed-use project near the Cabral Station would qualify for funds including bonuses, assuming that the TOD project provides a component of qualified affordable housing units. SJRRC would need to partner with the City of Stockton to apply for these funds from Housing and Community Development (HCD), with the city of Stockton serving as the applicant for these funds. This is a multiple-year program, authorized by Prop. 1C; however, its implementation has been delayed due to the state budget crisis. This may be beneficial in terms of the timing of TOD near the Cabral Station.

#### FUNDING FOR MIXED USE DEVELOPMENT

The primary funding for a mixed-use TOD project should come from a private developer partner, who would bring investor equity as well as debt financing to the project, based on the ability of the project to generate revenues from sale or lease income. However, due to typically expensive construction costs associated with high-density development that should be targeted for TOD projects, it is possible that even under improved market conditions, a developer may have difficulty financing a TOD project without some public financial assistance.

There are numerous opportunities for financial assistance, depending on project configuration and need. The project could qualify for funding through the city of Stockton Redevelopment Agency, either for housing components, commercial components, or general public improvements that would be viewed as helping to revitalize the redevelopment project area. The project could also qualify for funding from federal funds

administered by the city of Stockton: HOME (housing) or CDBG (housing, economic development, or community development). While the Cabral Station mixed-use parking garage planning project was funded by the San Joaquin County Measure K Smart Growth Incentive Program, the program would also potentially be able to fund capital projects that implement the plan. SJRRC would apply to SJCOG for the funding. In addition, the State Proposition 1C Transit Oriented Development program would be applicable, depending upon funding availability at the time that a TOD project is put together for the Cabral Station area. The project developer would need to partner with the city of Stockton to apply to HCD for Prop. 1C funding.

#### FUNDING FOR STRUCTURED PARKING DEVELOPMENT

The parking structure component of a mixed-use TOD project near the Cabral Station could serve both as parking for commuters who drive to the station before boarding the ACE train, as well as parking for people who live or work in the building, or who come to the building to access shopping or services. Although parking is currently free in the vicinity of the Cabral Station and there are only limited locations where hourly or monthly parking charges are imposed elsewhere in downtown Stockton, at some point in the future conditions may be such that convenient parking placed near the Cabral Station would command monthly and hourly parking user fees. Parking revenue bonds are one technique that has been used to finance parking garage construction.

Assuming that parking revenues alone will not pay for the cost of building a parking facility, garage costs may be apportioned to the different uses that will be served, and then different funding sources could be targeted to assist in the development of the parking spaces. Funding sources discussed previously for the mixed-use components (residential, office, retail, services) of the project could also be targeted to help pay for the construction of parking needed to serve those uses.

Parking to serve rail commuters could be financed using a range of sources. San Joaquin County Measure K includes set-asides for congestion relief projects and also for rail/bus services. Commuter parking to support ACE operations might potentially fit into one or both of those categories. SJRRC could apply to SJCOG for Measure K funds under the “flexible congestion relief” program. Also through SJCOG, SJRRC could apply for federal funds to assist with the project, including funds from the Federal Highway Administration’s Surface Transportation Program and the Congestion Mitigation and Air Quality Program. Parking facilities and other public infrastructure necessary to serve qualifying infill projects are eligible for funding under the State Proposition 1C Infill Infrastructure Grant Program, through HCD.

#### OTHER FUNDING OPPORTUNITIES

While none of the funding/incentive programs currently offered by the San Joaquin Valley Air Pollution Control District (SVAPCD) appear to link well with a TOD project, the District’s goal of maintaining and improving air quality within the region aligns well with SJRRC’s goal of encouraging greater transit ridership. SJRRC should maintain routine contact with SVAPCD and seek opportunities for the two organizations to collaborate on projects of mutual benefit. Over time, this may lead to increased funding opportunities related to the function of TOD projects and related increased transit ridership in reducing air pollution.

The TOD concept for the Cabral Station includes such features as solar panels for renewable energy generation and landscaping improvements that can be designed to capture stormwater runoff and help improve water quality. These types of sustainable development features may be eligible for special funding programs that become available from time to time from agencies such as the California Energy Commission, the California Air Resources

Board, or the U.S. Environmental Protection Agency.

## 5.5.2 Economic Strategy:

### Land Banking, Surface Parking and Mixed-Use Structured Parking

The following section presents economic evaluation of different interim uses for land-banked property. For each of the alternative uses, an annual return on investment is calculated to provide a sense of the extent to which interim uses would be economically self-sustaining, or whether they would require some form of public subsidy.

#### SURFACE PARKING

Tables 1, 2, and 3 examine the costs and revenues associated with using land near the ACE train station for a surface parking lot. Table 1 outlines the cost assumptions for a surface parking lot. The assumption is that SJRRC would need to purchase a total of approximately 2.5 acres of land to accommodate 92,500 square feet of surface parking (2.12 acres), which includes 190 parking stalls. The cost of acquiring vacant land near the ACE train station is around \$547,000 per acre, which is an average of the listing prices and land sales data for vacant lots presented in Section [5.5.2] Table 1: Cost of Surface Parking Lot. As stated in the Feasibility Cost Model for the ACE Parking Studies Appendix Section A1 prepared by the firm Davis Langdon as part of this study, the cost of constructing a surface parking facility is about \$15 per square foot, excluding soft costs. Therefore, taking into account the cost of land, the hard construction costs, and assuming soft costs amount to 25 percent of hard costs, the total costs of the surface parking lot would be about \$3.1 million, or \$16,300 per stall. Note that the cost of a photovoltaic (PV) system that could be added as a green feature of the parking facility is not included in this figure. It is assumed that the cost of PV system would be financed in an economically sustainable manner, whereby any renewable energy incentives and energy cost savings offsets would justify the installation of the system.

Table 2 presents the parking rates for a mixture of surface and structured parking lots in downtown Stockton within a half mile of the ACE Train Station. The monthly rates for a space at one of these parking lots, all run by the City of Stockton, range between \$45 and \$71 per month, or an average of \$52 per month.

Considering the cost and revenue information presented in Tables 1 and 2, Table 3 shows the annual return on investment for the surface parking lot. The annual net revenue of about \$99,800 (\$538 per stall) is 0.3 percent of the total cost. Assuming that surface parking is not constructed until such time as additional transit user demand and market conditions in the Cabral Station are able to support charging a monthly parking user fee at the levels discussed above, these calculations show that while surface parking would be able to cover its annual operating costs, there would be little return on the initial capital investment, implying some level of public subsidy required. Such public subsidy could potentially be justified in consideration of the fact that the parking could help to support additional transit ridership.



URBAN AGRICULTURE AND PARKS USE

Table 4 presents the cost of acquiring vacant land in Central Stockton and prepping the site for agricultural use. Again, the acquisition of vacant land is estimated at about \$547,000 per acre, and the cost of clearing existing debris from the site and grading the site is an additional approximately \$87,100 per acre. Once the land is prepared for agriculture, it would likely command only nominal annual lease rates. Although BAE was not able to find specific examples of comparable property leased for urban agricultural uses in Stockton, these types of operations are typically not able to pay lease rates that are commensurate with urban land values. Within San Joaquin County, ag lease rates may range from a low of about \$200 per acre per year to as much as ten times that under certain circumstances; however, even at the high end of the scale, the return on investment would be less than one percent, meaning that urban ag use would require almost complete public subsidy. Similarly, public park use would also require significant public investment with little to no expectation of generating off-setting revenues. An urban agriculture lease to a farmer would transfer maintenance responsibilities to the farmer, whereas use for public park land would not only higher up-front investments, but would also generate annual maintenance responsibilities.

ACQUISITION AND LEASE OF EXISTING BUILDINGS

As shown in Table 5, the cost of acquiring land with an existing building is about \$868,900 per acre, which equates to cost of about \$2.2 million for 2.5 acres containing approximately 38,600 square feet of buildings. The building(s) would command a monthly lease rate of about \$0.33 per square foot, and after taking into account vacancy and operating expenses the net annual leasing revenue for such a property would be about \$125,200. Consequently, the annual return on investment would be close to six percent. This scenario assumes that SJRRC would acquire property with an existing building that still has some useful economic life, for interim leasing, until such time as the condition of the building and the market conditions in the area would justify demolition of the building and replacement with a new TOD development.

	Surface Parking	Urban Agriculture/Park	Acquisition and Lease for Existing Use.
Annual Return on Investment	<1.0%	<1.0%	5.8%

SUMMARY OF INTERIM USES

The following table summarizes the costs and annual returns on investment for the three different scenarios.

As shown, the greatest return on investment, at close to six percent, comes from the continuation of existing uses because of the rent generated for industrial uses. Both community supported agriculture/park and surface parking uses could be expected to generate the lowest returns on investment, estimated at one percent or less. These economic findings indicate that different land banking scenarios would require different

amounts of public subsidy, with urban agriculture/park needing to be almost totally supported by public funds, surface parking having some ability to cover annual operating and maintenance costs at currently monthly permit fees, and acquisition and lease of existing buildings having the potential to be self-supporting from an investment standpoint, under the right circumstances.

#### POTENTIAL FEASIBILITY OF MIXED-USE STRUCTURED PARKING DEVELOPMENT

The next important issue related to land banking is when it might be economically attractive for SJRRC to consider developing the acquired land as a mixed-use project that includes a commercial component as well as additional structured parking for transit patrons. To make this estimate, BAE constructed a rough development pro-forma financial model to evaluate potential project costs relative to potential project income. The purpose of this exercise is to help provide an understanding of the economic conditions under which a TOD project in the Cabral Station area might be attractive to developers.

Table 6 outlines the pro forma assumptions for a development that contains retail space and structured parking to serve retail employees and patrons, as well as parking dedicated for transit patrons. The prototype analyzed is based on the project site that lies across Miner Street to the north of Cabral Station, on the western portion of the block. The grouping of parcels total approximately 1.05 acres of land. The prototype development defined by Gensler for this site would contain 114,600 square feet of structured parking (284 spaces) along with 38,200 square feet of retail space. Only 153 parking spaces of the 284 spaces, however, are attributable to the retail development given that the Stockton Municipal Code only calls for one space per 250 square feet of retail trade space. The remaining 131 parking spaces would serve the ACE customers exclusively. It is possible that fewer than 153 spaces would be needed for the retail development, given that the project would be designed to be transit-oriented. To reduce the parking requirement, however, a parking reduction would have to be approved by the Director of Planning or the Planning Commission (Source: City of Stockton Municipal Code, 16.64.050 Adjustments to off-street parking requirements). There is also an alternative parking option for the retail component, presuming that the land is acquired within the City of Stockton Parking Improvement District No. 2001-1 (i.e. within the West End Redevelopment Area), where the developer pays an assessment fee to the parking district and is therefore exempt from traditional parking requirements. (Source: City of Stockton Municipal Code, 16.64.060 Parking assessment districts).

Table 6 also outlines the development cost and financing costs for the project. Development costs include about \$547,600 per acre for vacant land, hard construction costs of \$75 per square foot for the retail shell and \$35 per square foot for the structured parking facility, soft costs as 10 percent of hard costs, and impact fees of approximately \$15.50 per square foot for the retail section and \$4.60 per square foot for the structured parking facility. Additional generalized assumptions also are included for construction and permanent financing costs.

Table 7 contains an analysis of the return on total costs based upon the assumptions presented in Table 6. The analysis shows that in order to produce a return on total costs of 15 percent, making the development financially attractive to private developers, the monthly rent attributable to the retail space must equal \$1.92 per square foot, triple net. Currently, the rent commanded by retail spaces in downtown Stockton is closer to \$1.50 per square foot. Spaces in the Hotel Stockton are advertised at \$2.00 per square foot, modified gross, but have been vacant for more than two years since renovation. If one were to input

a lease rate of \$1.50 per square foot into the analysis, the result is a negative 17 percent return on total costs, which deems the project infeasible under current market conditions, since it is unlikely that space in the Cabral Station area would attract rents greater than those prevailing elsewhere in the Downtown area. These calculations show that it would be necessary for the market rents to increase significantly in order to make the prototype retail development attractive. Such rent appreciation could be supported by overall economic recovery, followed by absorption of available retail spaces elsewhere in the downtown area, and finally, creation of a destination project at the Cabral Station that would be attractive to neighborhood residents, transit riders, and visitors from elsewhere in Stockton. This will likely be realized in the year 2020.

For the 131 parking spaces attributable to transit patrons, the total cost, including a pro-rata share of construction costs, soft costs, permits, financing, etc., is likely to be in the range of \$17,000 per space, not including land costs, or about \$2.6 million. As these spaces would be used for transit patrons, the cost of this parking would need to be covered by a combination of user fees and public investment.

## CONCLUSION

The results of this assessment should help refine the recommended approach for development of the Cabral Station area. If SJRRC decides to acquire land for the purposes of land banking, the acquisition of land with existing industrial uses and the continued use of the buildings as such will potentially be the most economically attractive of the different interim uses evaluated. The annual return on investment, however, is just one way to measure returns, and SJRRC may want to consider non-economic returns such as the community benefit of local food sources, and increased ridership as a result of more parking when deciding how to utilize the land acquired for land banking.

The results of the pro-forma analysis show that SJRRC would have to supplement the cost of a structured parking lot and accompanying retail space to make the project financially feasible under current retail market conditions. If SJRRC acquired property in the Cabral Station area in the near-term, the agency could consider one or more of the interim uses until such time as demand is strong enough in this location and realizable retail lease rates are high enough to make the project economically attractive. This may take a number of years; most likely a mid-term time frame (5-10 years). However, this may coincide well with the timing for enhanced rail services at the Cabral Station. Eventually, the retail component should be able to support the costs associated with developing the retail space and associated parking; however, it should not be expected that the retail component could also generate sufficient revenues to pay for significant excess parking to be used by transit riders. Thus, SJRRC should seek other sources of funds to help pay for transit parking, such as various potential funding sources discussed in Section 5.5.1.

**Table 1: Cost of Surface Parking Lot**

	<u>Assumptions</u>
Acres of land	2.5 Acres
Cost of vacant land, per acre	\$547,619 \$/Acre
Gross Floor Area	92,500 SF
Number of Parking Stalls	190
Cost per Square Foot for Construction (a)	\$15 \$/SF
Soft Cost as a Percentage of Hard Costs	25%
<b>Total Cost</b>	<b>\$3,103,422</b>
<b>Total Cost per Parking Stall</b>	<b>\$16,334</b>

Note:

(a) Cost per stall includes clearing and grading the existing site. Porous vehicular and pedestrian paving, site landscaping including trees to the curbside and parking lot development, bioswale, site lighting and striping. All costs are for 2010, and the cost excludes soft costs such as architectural, design and construction management fees, and assessments, taxes, finance, legal and development charges.

Sources: Davis Langdon, Feasibility Cost Model for ACE Parking Studies, 2010; BAE, 2010.

**Table 2: Parking Rates, Downtown Lots (a)**

<u>Parking Lot Name and Location</u>	<u># of Spaces</u>	<u>Monthly Rate</u>	<u>Hour/Day Rate</u>
Lot B, Intersection California St. and Channel St.	20	\$45	n.a.
Lot F, Intersection Market St., and Sutter St.	78	n.a.	n.a.
Lot J, California St between Weber St. and Main St.	41	n.a.	\$2 per hour
Lot K, West side of American St. between Weber Ave. and Main St.	44	\$45	\$5 per day
Lot L, East side of American St. between Weber Ave. and Main St.	90	\$45	\$5 per day
Lot A, Channel St. between Sutter St. and San Joaquin St.	331	\$71	\$2 per hour
<b>Average Monthly Rate</b>		<b>\$52</b>	

Note:

(a) Lots within 0.5 miles of the ACE Train Station.

**Table 3: Economics of Surface Parking**

	<b>Parking Stall Assumptions</b>
Cost per Stall	\$16,334
<b>Revenues</b>	
Monthly Rent per Parking Space Required	\$52
Parking Vacancy Rate	10%
Operating Costs, Per Space (a)	\$42
<b>Yearly Revenues per Parking Stall</b>	
Annual Leasing Revenue	\$618
Less Vacancy	(\$62)
Less Operating Expenses	(\$500)
<i>Subtotal Annual Net Revenues per Stall</i>	\$56
<b>Annual Return on Investment</b>	<b>0.3%</b>

**Note:**

(a) BAE estimate based on prior project experience. Includes maintenance as well as administration/enforcement of parking permits.

Sources: Davis Langdon, Feasibility Cost Model for ACE Parking Studies, 2010; City of Stockton Central Parking District, 2010; BAE, 2010.

**Table 4: Economics of Community Supported Agriculture**

<b>Assumptions</b>	
Size of Site	1.05 Acres
Cost of vacant land, per acre	\$547,619 \$/Acre
Preparation of Site for Agricultural Use (a)	\$87,120 \$/Acre
<b>Total Cost</b>	<b>\$666,476</b>
Monthly Rent	\$215 \$/Acre
<b>Yearly Revenue from Agricultural Use</b>	<b>\$2,709</b>
<b>Annual Return on Investment</b>	<b>0.4%</b>

**Note:**

(a) Assumes that the site is fairly level with no existing buildings on site. The budget allowance is for clearing existing debris and grading the site.

Sources: Davis Langdon, Feasibility Cost Model for ACE Parking Studies, 2010; Trends in Agricultural Land and Lease Values, 2008; BAE, 2010.

**Table 5: Economics of Acquisition and Continuation of Lease for Existing Use (Industrial)**

	<u>Assumptions</u>
Cost per acre of land with an existing building	\$911,378
Acres of land acquired	2.5 Acres
Accompanying building square footage (estimate)	38,562 (a)
<i>Subtotal Costs</i>	\$2,278,445
Revenue Assumptions	
Monthly Leasing Revenue	\$0.33 \$/SF
Less Vacancy	12%
Less Operating Expenses	6%
Yearly Revenues	
Annual Leasing Revenue	\$152,707
Less Vacancy	(\$18,325)
Less Operating Expenses	(\$9,162)
<i>Subtotal Net Revenues</i>	\$125,219
<b>Annual Return on Investment</b>	<b>5.8%</b>

**Note:**

(a) Assumes a FAR of 0.35 on 2.5 acres of land.

Sources: CB Richard Ellis, Market View Central Valley California, 2009; Colliers International Market Research, San Joaquin County, 2009; Loopnet.com, 2010; Dataquick, 2010; BAE, 2010

**Table 6: Pro-Forma Assumptions for Retail/Parking Structure Development**

<b>Assumptions</b>	<b>Market Rate</b>
<b>Project Characteristics</b>	
Project Type: Retail Commercial	
Site Area, Acres	1.05
Retail Space, Sq. Ft. (b)	38,200
Structured Parking Sq. Ft. (c)	61,658
Total Parking Spaces (c)	284
Structured Parking for Transit Users	131
Structured Parking for Retail Space	153
<b>Development Costs</b>	
Land Costs, (\$/Acre)	\$547,619
Hard Costs	
Structured Parking Facility (\$/SF)	\$35 (g)
Retail Shell (\$/SF)	\$75 (h)
Soft Costs, Percentage of Hard Costs (d)	10%
Building, Permitting, Impact, and Government Fees, (\$/SF)	
Retail Space	\$15.50
Structured Parking Facility (e)	\$4.60
<b>Financing Costs</b>	
Construction Financing	
Required Loan to Cost Ratio	80%
Loan Fees	2.0%
Interest Rate, Annual	9.75%
Project Development Period, Years	1
Construction Drawdown Factor	0.55
Permanent Financing	
Required Loan to Value Ratio	75%
Loan Fees	2.0%
<b>Net Operating Revenues</b>	
Revenues	
Monthly Rent per Sq. Ft. Retail Space (f)	\$1.92
Long Term Commercial Retail Vacancy Rate (f)	12.0%
Commercial Development Operating Costs, as a Percentage of Revenues	4.0%
Capitalization Rate	7.0%

**Notes:**

- (a) Downtown commercial development standards from General Plan 2035.
- (b) As stated in the feasibility cost model by the firm Davis Langdon.
- (c) Chapter 16.64.040 of the Stockton Municipal Code requires one space per 250 square feet of retail trade space.
- (d) Soft Costs include developer overhead, legal fees, and engineering and surveying fees. Excluding government fees, and financing fees, soft costs represent 10 percent of total hard costs.
- (e) Public facilities fees are not charged on the garage portion, therefore there is a lower fee on the garage portion of the project.
- (f) See the text of Phase I of the Cabral Station TOD report by BAE.
- (g) Applied to the square footage of structured parking designated for retail and the retail shell square footage.
- (h) Applied to the retail shell square footage only.

**Table 7: Retail/Parking Structure Pro-Forma Analysis**

<b>Pro-Forma Analysis, for Retail Component Only</b>	
<b>Development Cost Summary</b>	
Land (a)	\$575,000
Construction Costs	\$6,360,031
Fees/Permits	\$875,727
Other Soft Costs/ Developer Overhead (b)	\$693,503
<i>Subtotal Construction Costs</i>	<i>\$8,504,261</i>
Finance Costs (Retail Components of Project Only):	
Amount of Construction Loan	\$6,803,409
Interest on Construction Loan	\$364,833
Points on Construction Loan	\$136,068
Amount of Permanent Loan	\$7,905,091
Points on Permanent Loan	\$158,102
<i>Subtotal Finance Costs</i>	<i>\$659,003</i>
<i>Total Development Costs</i>	<i>\$9,163,264</i>
<b>Annual Revenues and Expenses (Retail Components of Project Only):</b>	
Commercial Revenue (c)	
Annual Leasing Revenue	\$878,343
Less Vacancy	(\$105,401)
Less Operating Expenses	(\$35,134)
<i>Subtotal Net Revenues (d)</i>	<i>\$737,808</i>
<i>Total Capitalized Value (e)</i>	<i>\$10,540,121</i>
<b>Development Feasibility</b>	
Total Capitalized Value	\$10,540,121
Less Development Costs	(\$9,163,264)
<b>Total Profit</b>	<b>\$1,376,858</b>
<b>Return on Equity (f)</b>	<b>58%</b>
<b>Return on Total Costs (g)</b>	<b>15%</b>

**Notes:**

(a) Based on a 2.5 acre project

(b) Includes overhead, legal fees, engineering, surveying, and architectural fees. Equals approximately 10 percent of total hard construction costs.

(c) Based on current retail lease rates in Downtown Stockton.

(d) Includes only revenue from retail space and not the possible parking revenue.

(e) Utilizes a 7.0 percent capitalization rate.

(f) Return on Equity is equal to the total profit divided by the developer's share of total costs.

(g) Return on Total Costs is equal to the total profit divided by the total costs of the project.

Source: BAE, 2010.





Altamont Commuter Express I Planning and Parking Strategy : Cabral Station

The background of the page is a light purple color with a dense pattern of small, multi-colored dots (pink, blue, green, yellow) scattered across it. Overlaid on this pattern are several large, semi-transparent circles in shades of grey and blue, arranged in a grid-like fashion. The text 'Project Appendix A' is centered at the bottom of the page in a white, sans-serif font.

# Project Appendix A

Altamont Commuter Express I Planning and Parking Strategy : Cabral Station



## **FEASIBILITY COST MODEL**

**for**

**ACE Parking Studies  
San Joaquin Rail Commission**

March 22, 2010

## ***INCLUSIONS***

The Cost per Stall pricing consists of the following components:

1. Surface Parking costs are based on preliminary plans develop by Gensler for surface parking for 190 cars on a 92,500sf lot. Cost per stall includes clearing and grading the existing site, porous vehicular and pedestrian paving, site landscaping including trees to the curbside and parking lot development, bioswale, site lighting and striping.
  - 1a. Cost for the PV system is based on a 200sf structure per stall at \$100/sf which includes the steel framing support system as well as the cost of the panels.
  - 2a. Structured parking costs are based on recent cost for other similar projects constructed in Northern California. The unit cost includes all structural, architectural, plumbing and electrical costs required for a transit parking structure. The retail costs includes a shelled retail space, with the majority of cost for fitout to be provided by the tenant.
  - 2b. Cost for the PV system is based on a 200sf structure per stall at 100/sf which includes the steel framing support system as well as the cost of the panels.
3. Prep site for Park or Agricultural Use assumes the site is fairly level with no existing buildings on site. The budget allowance is for clearing existing debris and grading the site.

**ACE Parking Studies  
San Joaquin Rail Commission**

**Feasibility Cost Model  
March 22, 2010  
014-05696.110**

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***INCLUSIONS***

***BIDDING PROCESS - MARKET CONDITIONS***

This document is based on the measurement and pricing of quantities wherever information is provided and/or reasonable assumptions for other work not covered in the drawings or specifications, as stated within this document. Unit rates have been obtained from historical records and/or discussion with contractors. The unit rates reflect current bid costs in the area. All unit rates relevant to subcontractor work include the subcontractors overhead and profit unless otherwise stated. The mark-ups cover the costs of field overhead, home office overhead and profit and range from 15% to 25% of the cost for a particular item of work.

Pricing reflects probable construction costs obtainable in the project locality on the date of this statement of probable costs. This estimate is a determination of fair market value for the construction of this project. It is not a prediction of low bid. Pricing assumes competitive bidding for every portion of the construction work for all subcontractors and general contractors, with a minimum of 4 bidders for all items of subcontracted work and 6-7 general contractor bids. Experience indicates that a fewer number of bidders may result in higher bids, conversely an increased number of bidders may result in more competitive bids.

Since Davis Langdon has no control over the cost of labor, material, equipment, or over the contractor's method of determining prices, or over the competitive bidding or market conditions at the time of bid, the statement of probable construction cost is based on industry practice, professional experience and qualifications, and represents Davis Langdon's best judgment as professional construction consultant familiar with the construction industry. However, Davis Langdon cannot and does not guarantee that the proposals, bids, or the construction cost will not vary from opinions of probable cost prepared by them.

***EXCLUSIONS***

- Tenant fitout to retail space
- Improvements to street beyond face of curb
- Demolition of any on site structure
- Hazardous material handling, disposal and abatement
- Compression of schedule, premium or shift work, and restrictions on the contractor's working hours
- Testing and inspection fees
- Architectural, design and construction management fees
- Scope change and post contract contingencies
- Assessments, taxes, finance, legal and development charges
- Environmental impact mitigation
- Builder's risk, project wrap-up and other owner provided insurance program
- Land and easement acquisition
- Cost escalation beyond 2010



**ACE Parking Studies  
San Joaquin Rail Commission**

**Feasibility Cost Model  
March 22, 2010  
014-05696.110**

**OVERALL SUMMARY**

	<b>Gross Floor Area</b>	<b>\$ / SF</b>	<b>\$x1,000</b>
1 Surface Parking Option	92,500 SF	15.00	1,388
<b>Cost/Stall</b>	<b>190 EA</b>	<b>7,300.00</b>	
<b>1a Add PV</b>	<b>190 EA</b>	<b>20,000.00</b>	
2 Parking Ramp	114,600 SF	35.00	4,011
Retail Shell	38,200 SF	75.00	2,865
<b>Cost/Stall</b>	<b>284 EA</b>	<b>24,200.00</b>	<u>6,876</u>
<b>2a Add PV to top floor</b>	<b>95 EA</b>	<b>20,000.00</b>	
<b>Prep site for Park or Agricultural use</b>	<b>18 \$/SY</b>		

Note: costs above are 2010 construction costs only and exclude escalation to start of construction and all soft costs (see Inclusions and Exclusions)



# Project Appendix B



**STAKEHOLDER  
ROUNDTABLE  
DISCUSSION**

**ROBERT J. CABRAL  
STATION NEIGHBORHOOD  
REVITALIZATION**

March 24, 2011

10:00 am—noon

Cabral ACE Station  
Stockton, CA

**Welcome**

**Introductions**

*What is my interest in the Cabral Station Neighborhood?*

**ACE Parking & Planning Strategy Study**

*Study overview by the consultant team*

**Roundtable Discussion**

*Some points to consider:*

- Strengths, Weaknesses, Opportunities, Threats
- Funding strategies
- Regional goals and High Speed Rail
- Near- and Long-term actions
- Working with our partners

**Synthesizing Ideas, Establishing Actionable Goals**

*Some questions to consider:*

- Any patterns or conclusions from the discussion?
- Are there clear action items for next steps?
- Can these next steps be attached to a timeline?

Thank you  
for coming!



## WORKSHOP ATTENDEES

Mayor	Ann	Johnston
Supervisor	Steve	Bestolarides
Supervisor	Carlos	Villapudua
Mr.	Gregg	Albright
Ms.	Kitty	Walker
Ms.	Emily	Mah-Nakanishi
Mr.	Gregg	Meisner
Mr.	Bob	Deis
Ms.	Sam	Kaur
Ms.	Natalia	Orfanos
Mr.	David	Nelson
Ms.	Kate	White
Mr.	Gary	Binger
Mr.	Matt	Kowta
Mr.	Thomas	Reeves
Mr.	Lewis	Knight
Mr.	Rick	Phillips
Mr.	David	Zhender
Mr.	Phil	Pennino
Ms.	Stacey	Mortensen
Ms.	Erin	Cubbison
Mr.	Dale	Stocking
Mr.	Trevor	Atkinson
Mr.	Ron	Addington
Ms.	Shelley	Burcham
Mr.	Jeff	Goldman
Mr.	Mike	McDowell
Mr.	David	Stagnaro
Mr.	Mike	Niblock

## WORKSHOP SUMMARY

Site Strengths:

Flexibility

Context

Livability

“It’s not all about parking”

Mayor:

The site can be a gateway or anchor to the City of Stockton

Strengthen connection between the station and the Port, with the transit center as an intermediate anchor

Establish a neighborhood around the station

Incentivize links to downtown

Proximity to the transit center is key

Define the project area

Perform EIR to reduce risk

Reduce fees and barriers to new development

There is an opportunity for more density than single family development

Encourage multi-family development instead of single family development, must reduce the perceived equity risk.

SJRRC to take the lead. The rail is a catalyst for this project

SJRRC has the vision and the knowledge to lead the project

High Speed Rail planning will be a key factor

Focus on what has worked

Acquisition strategy: land banking

Land will be a link in the corridor between the station and the waterfront

There must be several nodes that strengthen the corridor, which should focus on local needs/services and a high quality experience

Key question will be: When to go vertical and build a garage?

This will greatly depend on HSR

Maintain a strong public role: Driving force is Public Private Partnership

# B1 Project Appendix

Market demand is critical. Should consider:

- Transit connectivity
- North Stockton linkages
- Role of the automobile

There are different scales of connectivity:

- Stockton-wide
- Stockton core
- Station neighborhood

Referenced Projects

Revitalization:

- San Antonio River Walk
- San Diego Revitalization
- Long Range Planning

Models that have used transportation as a lead for land use:

- Portland
- Denver
- Boston
- MSP
- Sacramento
- Washington DC

Funding example:

- LA Union Station early studies

These all involved building partnerships

Steps:

- Review existing assets in the neighborhood
- Seed Development
- Create a vibrant community
- Think of the neighborhood and core as a system

Not only “Transit Oriented Development” but also “Development Oriented Transit”

Challenge: This project is a pioneer for the city. Must be creative.

Opportunities: UOP downtown graduate housing (Lexington Condos)

Must get bodies downtown in non-traditional ways.

Engage ULI: Bring together economists, developers, and designers in a think tank.

Financing strategies are key. Leverage high speed rail.

Explore connection to Altamont improvements

Process will involve alternatives analysis, EIR/EIS in 2015, and a 50 yr plan

HSRA Board:

Station area planning funds will come from California and Federal Sources. That can be used for the initial operating segment and Phase 1. This project should concentrate on this milestone. Federal dollars estimated at \$4.5 mil. California state dollars not known. HSRA focusing on 7 stations and will be distributing letters within the next few weeks. California is well-positioned.

Explore the Sustainable Cities Initiative (EPA, DOH, HUD)

Get on the federal database as a center for TOD development

Explore for potential funding:

California Strategic Growth Council

Prop 84, focused on SB 375

Small Group funding, \$20 mil next year (Kitty Walker)

Site re-zoned to be more flexible and conducive to denser, mixed-use development.

City should identify any plan conflicts, provide zoning conformity, match efforts.

Must discourage low-intensity uses.

Potential weaknesses:

Location

Safety

Ridership

Business development

How does the project get to Phase 3 from a regulatory sense?

Evolutionary forward planning:

Crawl>Walk>Run equates to

Rehabilitation>Densification>Medium Sized Projects

What will be the impact of High Speed Rail?

HSR and ACE station(s) will occupy 3 city blocks

Need to figure out how 4,000 dwelling units downtown can fit into the plan.

Goals:

Identify creative financing strategies

Partner with developers ASAP

CEQA speed is linked to EIR with the rail agency. It should be a one-year process to complete the General Plan amendment and zoning conformance

Commit to a process that is coupled to downtown transportation

Commit to the assets of downtown

Infrastructure planning is vitally important

Mayor:

Create a working group

Define a project area

SJRRRC is the connection of the project area to the city

Include the input of Chambers and Alliance. RTD to be included.

The connection between the Transit Center and Cabral Station is workable, feasible, and vital. Include the Transit Center in this facility.

Consider the Live/Work development model. Must get over the perception of downtown. There is a generational shift. Must get young people here.

High Speed Rail has international precedents. The key is building centers around transit. Requires additional investment.

Connectivity is crucial. How does this fit for the I.O.S.? Establish interim strategies. (Consider a generational approach.) Get the bus right. VMT must drop. There must be system-wide transit and connectivity.

Transitional strategies are key: Long-range vision with short-term opportunity.

There must be market support for opportunity. This is based on ridership and the neighborhood. Most opportunity when 60-80 du/acre



Prioritize connections: Define immediate area of influence. Consider the relationship between master development vs organic development

Steps:

Increase ridership: Reduce VMT and increase connectivity.

Revitalize neighborhood: Have a vision. Grow both businesses and residential.

Complement downtown: Don't cannibalize.

Secure funding: This is based on the vision, timing, and cost

Mayor:

Opportunity for charter schools downtown

Paris and OS as a catalyst. Combination of communities

Critical not to cannibalize the bones. Key areas are site, people, and organizational connectivity. Consider the radius and influence of the site.

When developing the vision, be articulate, clear, and precise.

Focus on the younger generation and creatives. Engage, grow, and reuse existing assets. Leverage temporary and seasonal activities.

The Business Council includes a wide variety of funding partners. Opportunity: Convention Center downtown.

Don't focus on re-inventing. Use existing assets and move on.

Need master plan for TOD:

Existing conditions (2010) > Expansion (2018+) > HSR (2060)

ACE + Amtrak to I.O.S. of HSR. Need to connect to HSP. This will shape what is profitable.

Steps:

Identify this area as a catalyst to the East Downtown Gateway

Secure funding to purchase land ASAP

Have an overall plan but have an incremental approach

Partnership between City and SJRRC

Is there an opportunity to use federal money to address foreclosed properties? Proposition IC is on the table. This would build the federal connection to SJRRC and provide regional smart growth opportunities. Must coordinate the Stockton Plan with this effort.

# B1

Project Appendix

There is a shift in the paradigm of revitalization. Successful projects are driven by private developers with collaboration from the government.

Zoning to include a comprehensive review of station and RTD. Includes zoning and overlay zoning.

The regulatory key is setting the table: do the environmental reviews to establish a clear and facilitated vision.

Steps:

Articulate clear vision

Facilitate decision

Rezoning is a good first step (CD). 0-87 du/acre

Define the study area

Transportation + City grid + route 4

Consider abandoning some to aid development.

Goal: Walkable and useable Miner Ave.

Vision could include the changing trends in workstyle and lifestyle.

ACE wants to partner with the experts in the room today

SJRRC is action oriented, cannot afford to lose the opportunity, wants to position for the future, not react later

WORKSHOP NOTES

1/ PHIL

SAN ANTONIO - RIVER WALK.

SAN DIEGO - REITALIZATION.



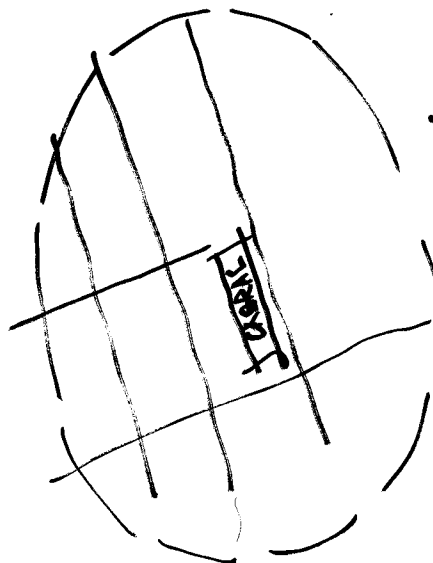
LONG RANGE PLANNING

1992/3 - HOW DO WE ASSEMBLE SJRRC

15 YEARS

SWOT

AREA:



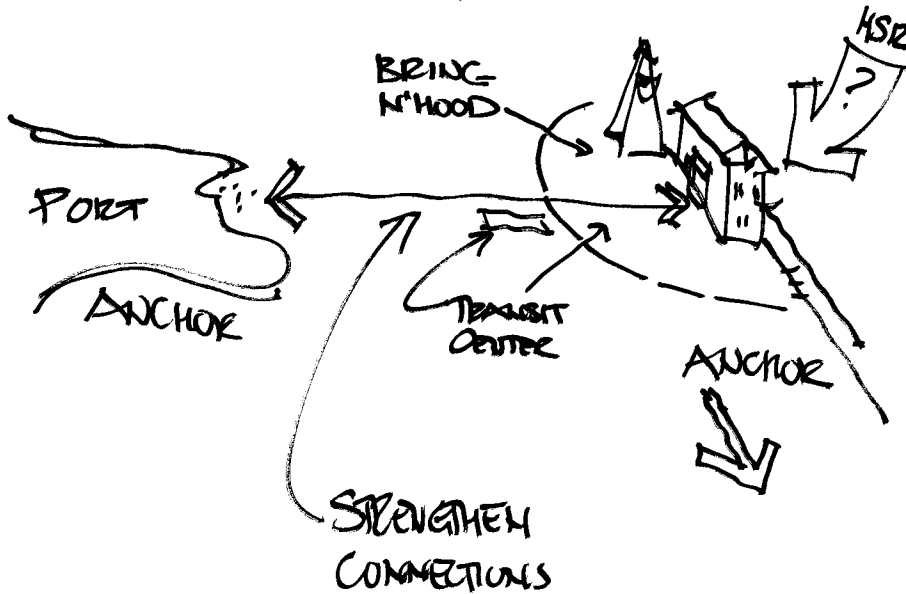
- STRENGTHS

- FLEXIBILITY (Street life) e.g. 5<sup>th</sup> & GAYLOR ST
- CONTEXTUAL STRENGTH
- LIVEABILITY

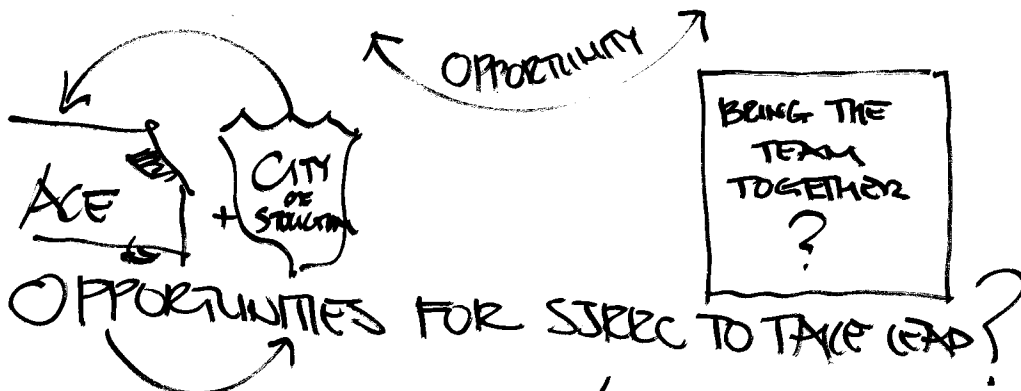
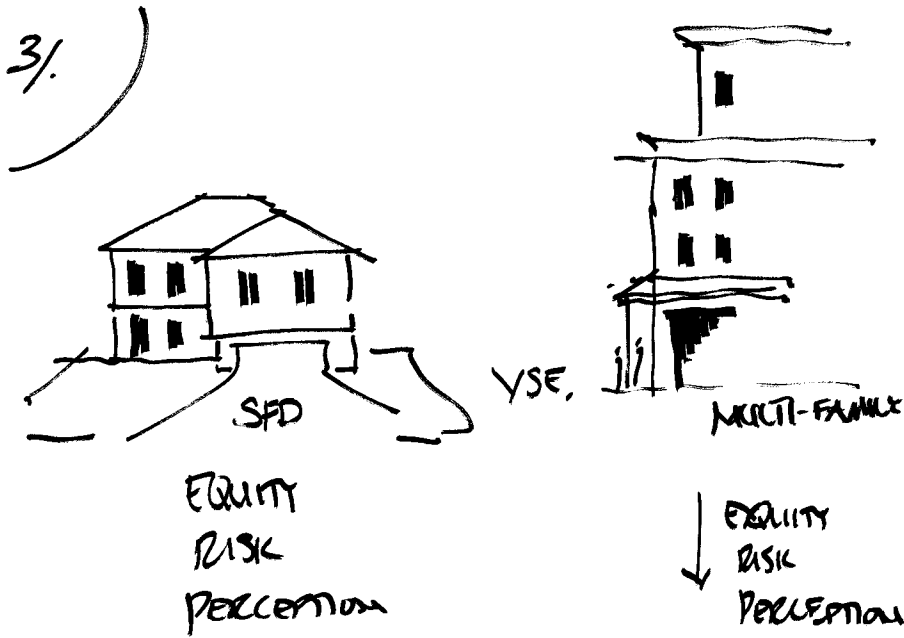
## 2/ STRENGTHS

"IT'S NOT ALL ABOUT PARKING"

• MAJOR: GATEWAY / ANCHOR TO CITY OF STOLM

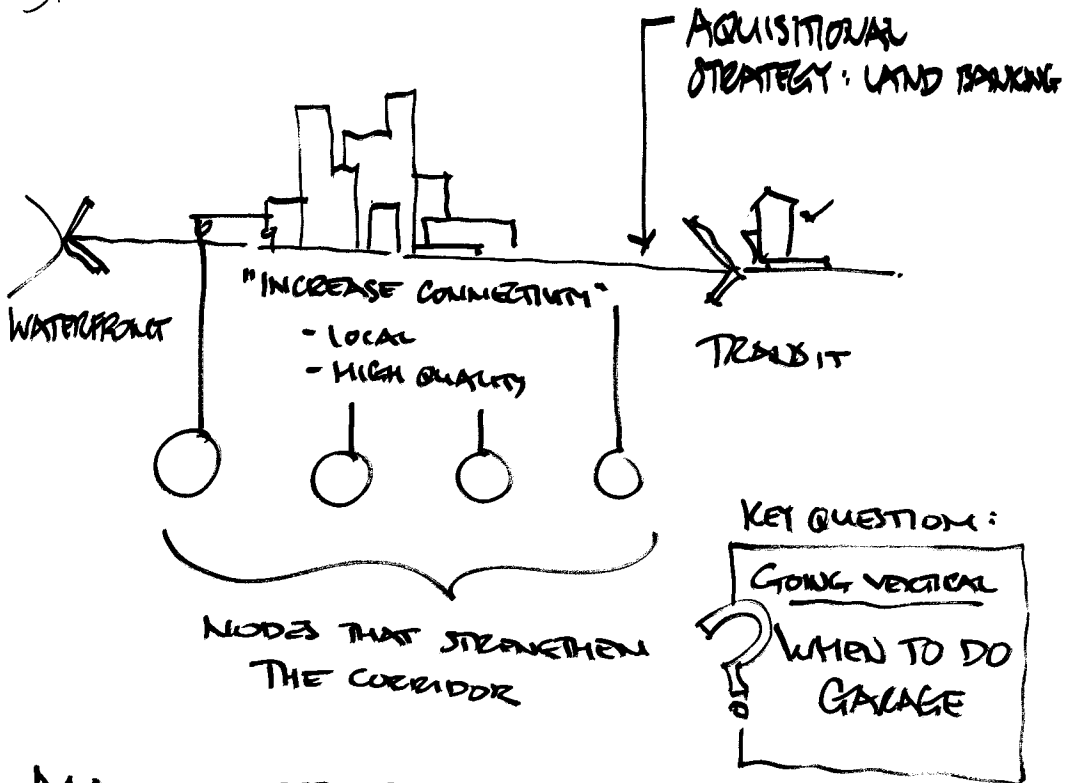


- INCENTIVE LINKS TO D'TOWN
- PROXIMITY TO TRANSIT CENTER
- WHOLE CORRIDOR SPECIFIC / STRATEGIC PLAN
- DEFINE PROJECT AREAS
  - TAKE RISK / DO OR TO MAKE SURE WE PRODUCE RENT
  - REDUCE FEES + BARRIERS



- RAIL IS A CATALYST (SHOULD BE LEAD AGENCY)
- HSR PLANNING (VISION + KNOWLEDGE)
- FOCUS ON WHAT HAS WORKED...

4)

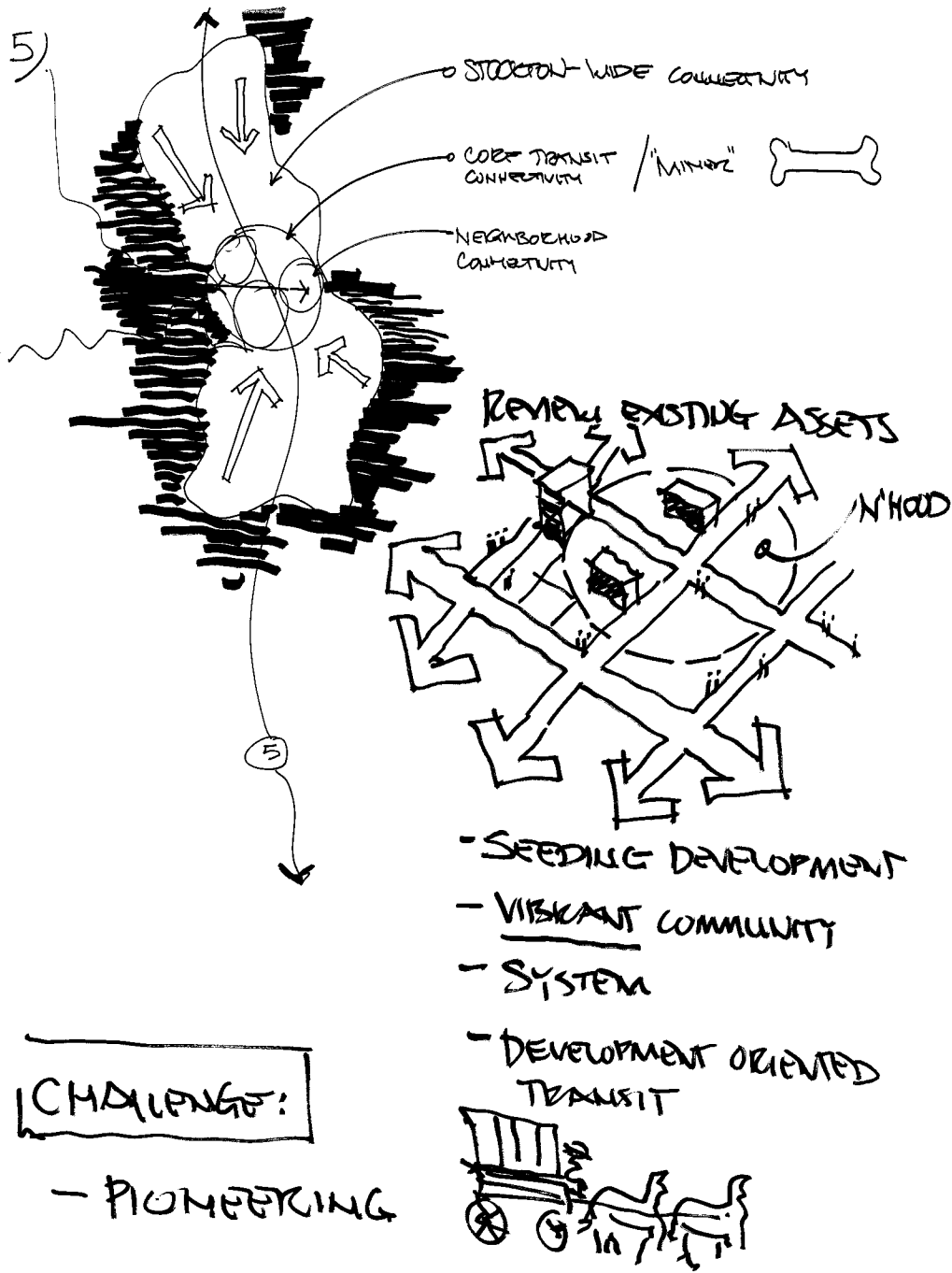


MAINTAIN STRONG PUBLIC ROLE →

DRIVING FORCE - PPP PUBLIC | PRIVATE | P' PARTNERSHIPS

MARKET DEMAND

- David Nelson
- ↳ TRANSIT CONNECTIVITY
  - ↳ NORTH STOCKTON LINKAGES
  - NORTH OF HAMMER
  - ↳ BY CAR.



6)

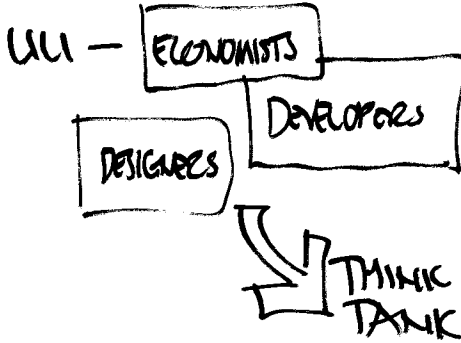


NEED TO PUT  
ON CREATIVE  
HATS ...

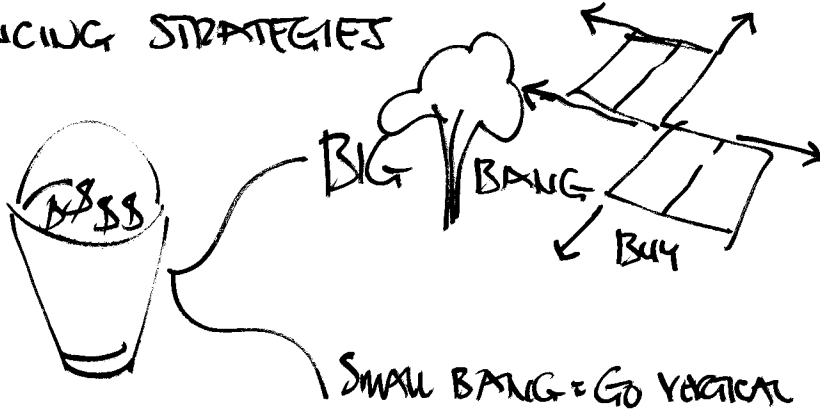
UOP DOWNTOWN GRADUATE  
HOUSING = LEXINGTON CONDO'S..

GETTING BODIES D'POLINI  
IN NON TRADITIONAL WAYS

Gay  
Binger



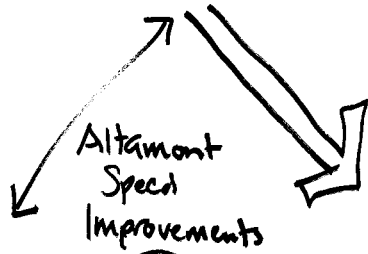
FINANCING STRATEGIES



LEVERAGE HIGH SPEED RAIL -



7) GENE ENDELON = HSR



ALTERNATIVES ANALYSIS



EIR/EIS = 2015



50 YR. PLAN =

**HSRA BOARD**

Station Area Planning \$\$\$

CA. + FED =

↓

INITIAL OPERATING SEGMENT  
+ PHASE I = CONCESSION THREAT

↑

---

\$ 4.5 MILL. = FED. DOLLARS  
= PH. I

---

\$\$\$ CA. STATE \$\$\$ =

Eg. - LA UNION STATION  
EARLY STUDIES

HSRA =

7 STATIONS - LETTERS OUT  
IN NEXT COUPLE OF  
WEEKS.

CA IS WELL POSITIONED.....

8).

SAM: SJCOG ⇒ LEVERAGE FED. DOLLARS

\* US: EPA | DOI | HUD = SUSTAINABLE CITIES INITIATIVE

(FTA)  
CENTER FOR TOD DEVELOPMENT →

- GET ON FED. DATABASE

Jeff Goldman - CA, STRATEGIC GROWTH COUNCIL  
= POTENTIAL \$\$\$

- Prop. 84 \$\$\$ (All we got?) } SB575  
Center

Kitty - Small Group Small Funding  
\$20 million Next year!!!

MORE FEASIBLE?

Emily - ZONING = CD | 10 ZONING

Mike

- CITY = IDENTIFY PLAN CONFLICTS

= ZONING CONFORMITY

= MATCH W/ CITY EFFORT  
IN PLACE.

9) Matt Konta



CD ZONING w/ OVERLAY ZONING..

- DISCOURAGE LOW INTENSITY USES.

- ACTION: WORK w/ CITY ON ZONING.

David Nelson



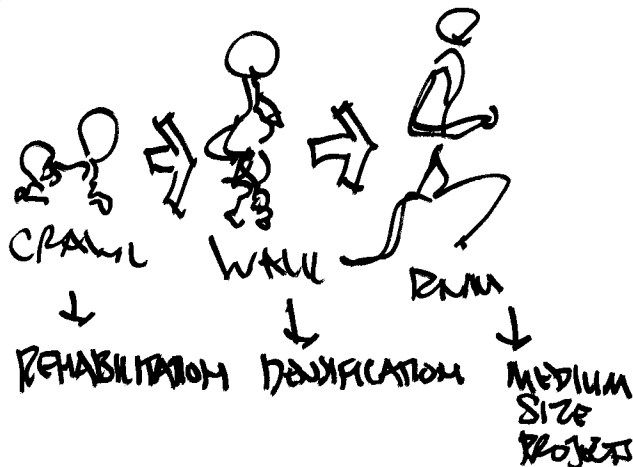
- WEAKNESS = LOCATION ?
- = SAFETY ?
- = RIDERSHIP ?
- = BUSINESS ?

- PHASE 3 =

Jeff → LOCATION ?

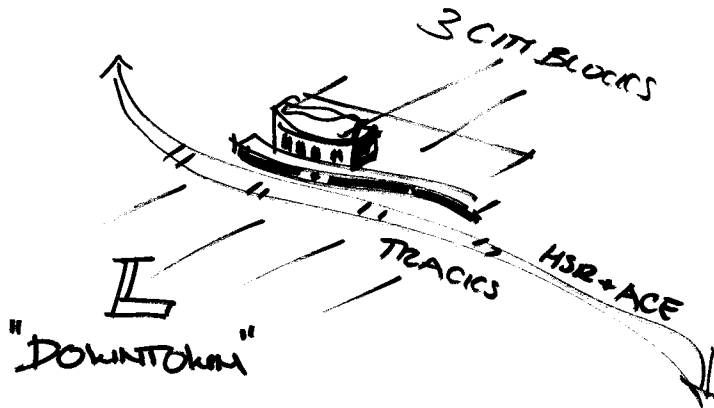
→ HOW DO WE GET THERE FROM A REGULATORY SENSE ?

EVOLUTIONARY FORWARD PLANNING



10).

Date: WHAT IS IMPACT OF HIGH SPEED RAIL.



Steve - Good Start + SJREC to Spearhead

CITY - 4,000 D.U. D'TOWN - How DOES IT FIT IN?

Mayor - Who?  
How Quickly?

## 11). GOALS:

Gary Binge

- IDENTIFY CREATIVE FINANCING STRATEGIES
- PARTNERING W/ DEVELOPERS ASAP (W/ IN 3 MO.)
- CEQA SPEED.. = EIR W/ RAIL AGENCY

(1 YEAR PROCESS)

GENERAL PLAN  
AMENDMENT = 2011  
+ ZONING CONFORMANCE

- Rick (HNTB)

CITY

↳ Commit to a process that is coupled to downtown transportation ...

↳ Commit to the assets of downtown

- Jeff (AFLOM)

↳ INFRASTRUCTURE PLANNING IS VITALLY IMPORTANT ...

12).

- MAYOR: WORKING GROUP

- define project area and is connected

- SSREC = The Connector...

- PARTNERSHIP

- Supervisor = Chambers + Alliance



HAVE THEIR INPUT

+ RID TO BE INCLUDED

- David Stagnaro = City Planning =

TRANSIT CENTER TO CAROL IS  
WORKABLE, FEASIBLE + VITAL

- INCLUDE TRANSIT CENTER IN THIS  
FACILITY

- Phil - LIVE + WORK IN THIS REGION

- Shelley - PERCEPTION OF DOWNTOWN

13).

- GENERATIONAL SHIFT = Need to get young people here

→ → →  
CRAWL STAGNANT WALK BMM

- HSR = International Development

- = Key is Building Centers around transit

= Additional Investment

Greg = 1. CONNECTIVITY IS CRUCIAL

10SYSTEM = HOW DOES THIS FIT FOR THE I.O.S. ?

2. INTERIM STRATEGIES -

GENERATIONAL

3. NEED TO GET THE BUS RIGHT

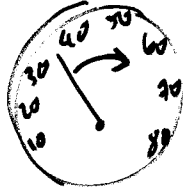
4. VMT | HAS TO DROP...



5. SYSTEM-WIDE TRANSIT + CONNECTIVITY

Greg: TRANSITIONAL STRATEGIES ARE A ICE T...

(4)



MOVE TO HIGHER  
SPEEDS →

LONG RANGE VISION WITH SHORT-TERM  
OPPORTUNITY

Kate (UU) = NATIONAL MODELS

= Transportation as lead on land use

- Portland | Denver | Boston | MSP | Sacramento
- ENVIRONMENTAL WORK
- BUILDING PARTNERSHIPS
- TOD AS LEGACY PROJECTS?

EG. WASHINGTON DC = 1/3 OF COST FOR  
NEW STATION..

David - MARKET SUPPORT FOR OPPORTUNITY

= Ridership + N'hood

60/80 dpu/acre

=



15).

- PRIORITIZE Close in Connections
- DEFINE IMMEDIATE AREA OF INFLUENCE
- REVIEW MASTER DEVELOPMENT  
VERSUS  
ORGANIC DEVELOPMENT

David  
Nelson

- = 1. INCREASE RIDERSHIP  
VMT ↓ + CONNECTIVITY
- 2. REVITALIZE N'HOOD = VISION  
BUSINESSES | RESIDENTIAL
- ②A COMPLEMENT D'TOWN  
RATHER THAN CANNIBALIZE
- 3. SECURE FUNDING
  - LOOK
  - TIMING
  - COST

Mayor = CHARTER SCHOOLS D'TOWN  
= GLEASON PART

16) Mayor : PARIS + O/S AS A CATALYST  
+ COMBINATION OF COMMUNITIES

Phillip - Key not to cannibalize the Bones

Natalia - SITE + PEOPLE + ORGANIZATIONAL  
CONNECTIVITY

Jeff = - RADIUS + INFLUENCE

- VISION
  - ARTICULATE / CLEAR / PRECISE
- YOUNG + THE CREATIVE
  - ENGAGE + GROW + RETIRE ETC.
  - ASSETS = TEMPORARY / SEASONAL  
ACTIVITIES...

Ron - 2ND GARY  
BRING US IN →

Kitty  
Shelley - BUSINESS COUNCIL = MISTAKE WAS MADE...  
↳ WIDE VARIETY OF FUNDING PARTNERS

17) Shelley = CONVENTION CENTER D'TOWN

Natalia = - Not reinventing ourselves  
- Use existing assets and move on!

Dale : Thankyou.

Trevor = MASTER PLAN FOR T.O.D.

EXTGT + EXPANSION + HSR



Stacey = ACE + AMTRAK TO I.O.S. OF HSR.  
- NEED TO COMMIT TO HSR.  
- THIS SHAPES WHAT IS PROFITABLE

David - Identify this area as a catalyst  
to the east d'town gateway  
- Secure funding to purchase land asap  
- Have an overall plan but have  
an incremental approach  
- City to Partner w/ SJVRC

18.) Phil - is there an opportunity to use Fed \$ to address foreclosed properties.



SAM = PROP. IC IS ON TABLE

- BUILD FED. CONNECTION TO SJCOG
  - + Regional Smart Growth Opportunities
  - + Co-ordinate Stockton Plan w/ that

KITTY = Thankyou

= ULI Credit to Gary Bingen

= SHIFT IN PARADIGM OF WHO DOES THIS STUFF

↳ SUCCESSFUL REVITALIZATION IS DRIVEN BY <sup>PRIVATE</sup> DEVELOPERS WITH COLLABORATION FROM GOVT.


MIKE - Phil - thank you

- ZONING - Comprehensive Review of Station and RTD

- ZONING + OVERLAY ZONING

19/  
MIKE - The Regulatory key is setting the table  
= doing the environmental review to  
establish a clear and facilitated vision

EMILY = ARTICULATE CLEAR VISION  
= FACILITATE DECISION  
- BECOME IS A GOOD FIRST STEP (CD)  
0 - 87 du/acre  
- DEFINE THE STUDY AREA

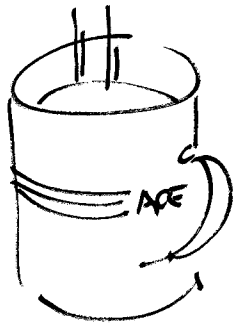
Mike  
McDowell - TRANSPORTATION + City Grid +   
- Consider abandoning some to aid dev.  
- Walkable and Useable MINER AVE.

Matt  
Konta - THANKS

ERIN - THANKS  
- 15 MIN. WALK  
VACANCY — VITALITY

- 20)
- VISION LOOK @ THE FUTURE OF WORK
  - HAS THE OPPORTUNITY TO

THOMAS:



PLEASE TAKE  
YOUR MUGS  
HOME

- YOU ARE THE EXPECTS
- ACE WANTS TO PARTNER

STACY: WE ARE ACTION-ORIENTED!

- = WE CAN'T AFFORD TO LOSE THE OPPORTUNITY!
- = WE WANT TO POSITION & NOT REACT LATER!