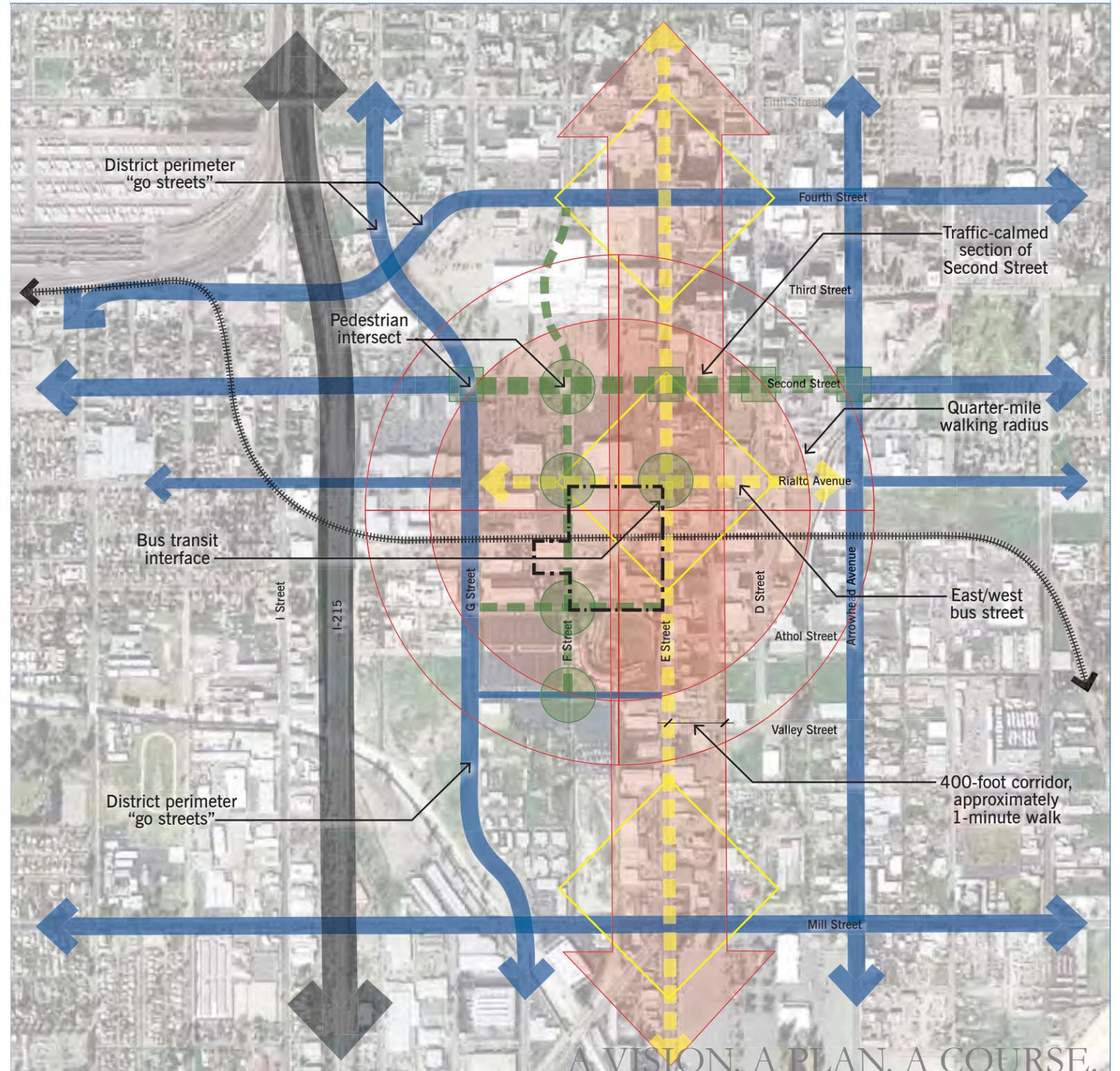


FROM TRANSIT STATION TO TRANSIT VILLAGE

A Recommendations Report for the E Street Station
in the City of San Bernardino





Compass Blueprint Program

This project was funded by the Southern California Association of Governments (SCAG) Compass Blueprint Demonstration Project Program. Compass Blueprint provides tools to cities to evaluate planning options and stimulate development consistent with the regions goals. SCAG provides cities with support to help with visioning, infill analysis, policy assistance, economic and marketing assistance and developing communication tools for cities.

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Acknowledgements

This project was a collaborative effort involving the participation of regional, subregional, and local agencies. The City of San Bernardino took the lead on the project, and organized a Stakeholder Workshop with members of the business community, local developers, City officials, transit agency representatives, and residents. Representatives from the following organizations participated in the workshop:

- SCAG
- San Bernardino Association of Governments
- City of San Bernardino
- City of Perris
- County of San Bernardino
- Caltrans
- Omnitrans
- Convention & Visitors Bureau
- Downtown Business Association
- Community Action Partnership
- Arrowhead Credit Union

This report is the product of their efforts and interests to make San Bernardino and the surrounding communities a better place to live.

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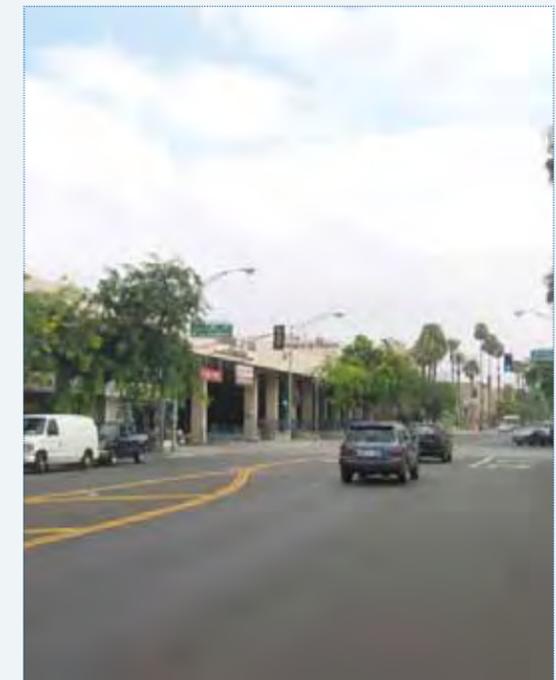
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Existing railroad tracks



Existing Streetscape

January 2007

Prepared by:



In collaboration with:



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Introduction

Southern California offers an abundance of recreational, entertainment, and economic opportunities set in an attractive living environment that continues to draw new residents and new jobs. San Bernardino County is expected to be a major recipient of this growth, adding nearly one million residents and nearly 600,000 jobs between 2000 and 2030. In response, policymakers and developers are taking a new interest in transit-oriented development as a way to accommodate the increased growth, address congestion issues, and promote enhanced commuter transit options.

Compass Blueprint Strategy

In 2001, the Southern California Association of Governments (SCAG) started a visioning process that culminated in a regional strategy to accommodate the coming growth while providing for livability, mobility, prosperity, and sustainability. This strategy, called “Compass Blueprint” promotes a stronger link between regionwide transportation and land use planning and encourages creative, forward-thinking and sustainable development solutions that fit local needs and support shared regional values. The strategy is broadly based on the following four key principles, which can be referred to as the “Compass Principles.”

Principle 1: Improve Mobility

Principle 2: Foster Livability in All Communities

Principle 3: Enable Prosperity for All People

Principle 4: Promote Sustainability for Future Generations

Compass Blueprint is now in the implementation phase and SCAG is partnering with cities and counties in southern California to realize this growth vision on-the-ground. A series of Compass Blueprint Demonstration Projects were conducted that exemplify the goals shared by the Compass Blueprint and unique visions of local communities.

Led by the City of San Bernardino, and based upon the work conducted by Omnitrans, the E Street Station site in the city’s downtown was selected to be one of these demonstration projects.

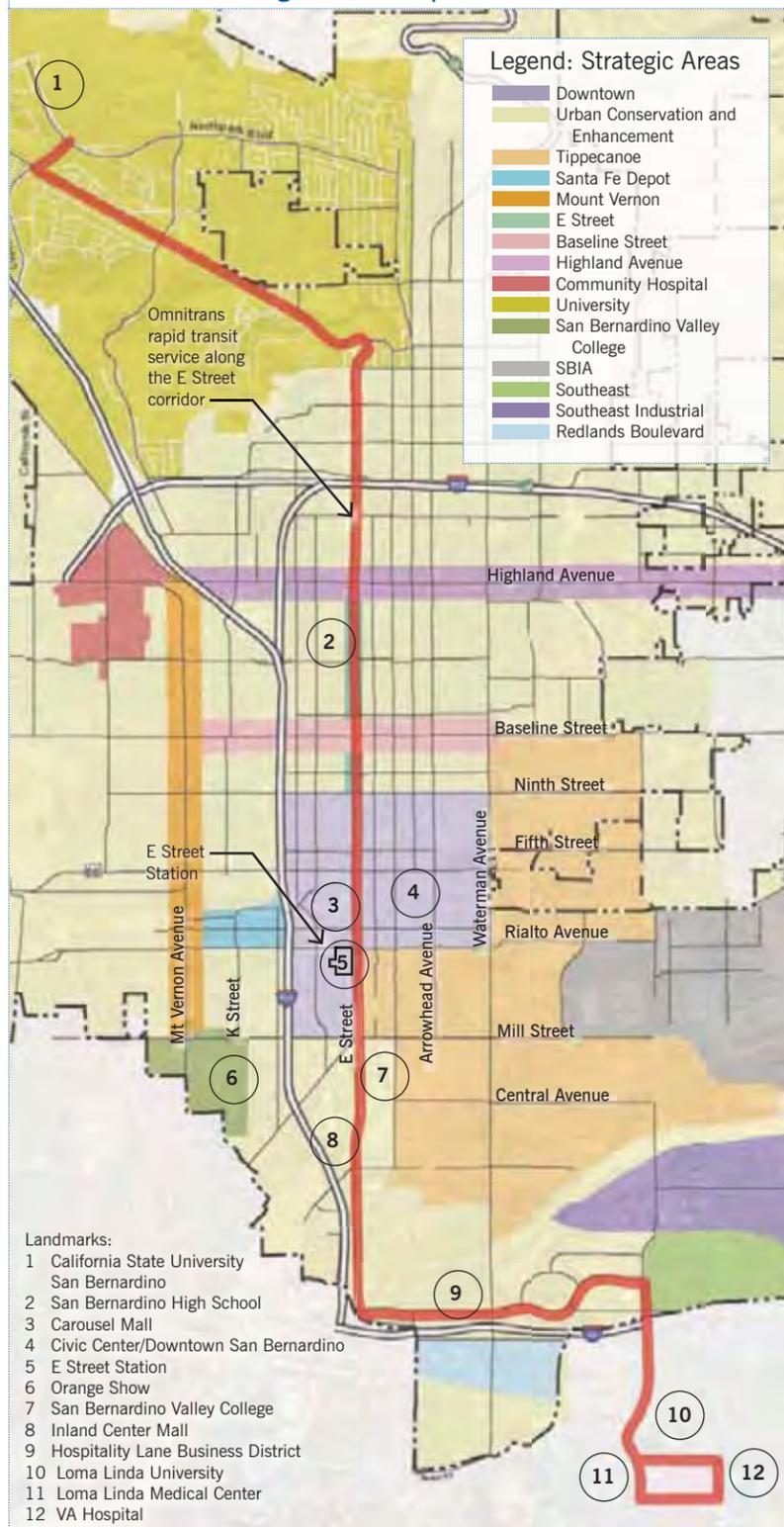
Aerial Map





San Bernardino Strategic Areas Map

San Bernardino Land Use Map



Demonstration Project Summary

The E Street Station Demonstration Project was conducted to understand the development potential of the E Street Station project site and surrounding downtown area. The ultimate potential depends upon many variables, including socioeconomic trends, surrounding development patterns, and the type of development envisioned for the station area. This demonstration project is a first step in evaluating these conditions and making a series of recommendations for next steps.

The E Street Station, the centerpiece of the demonstration project, is generally located between the former Carousel Mall and the Arrowhead Credit Union Park. The site is bordered by Rialto Avenue to the north, E street to the east, F Street to the west, and the Arrowhead Credit Union Park to the south.

Opportunities for the E Street Station range from a stand-alone multi-modal transit station (or Transcenter as envisioned by Omnitrans) set beside single-story retail development, to a Transit Village containing multi-story, mixed-use buildings of residential, retail, office, and transit uses.

Additional development potential is found around the Station—a quarter-mile radius is shown on most maps to illustrate a 5-10 minute walk from the Station. As projects such as the Carousel Mall redevelopment and E Street Station add new homes, residents, and transit options to the downtown, demand for additional restaurants, retail, office, and entertainment uses will grow. To generate this demand, however, the inaugural development projects such as those listed above must be of extremely high quality and of sufficient intensity to stimulate sustainable interest in downtown San Bernardino.

The E Street Station is an important regional transportation link and its opening will be a step toward a mixed-use downtown core that will generate downtown activity. This demonstration project represents a first step in evaluating how the future Metrolink and bus station can best

be integrated with the downtown and how the larger downtown area can start to transition to a mixed-use environment with multimodal transit services and a pedestrian urban design focus.

To assess the development potential and assist the City in further developing a vision for the station and downtown area that considers all the elements of a vibrant Transit Village, this demonstration project:

- Conducted land use opportunities and constraints analyses from a transit-oriented perspective;
- Created contextual urban design strategies to intensify land uses;
- Conducted circulation analyses that focus on circulation issues associated with future transit ridership projects and intensification of land uses;
- Created circulation concepts that incorporate pedestrians and propose multiple access routes within the half-mile area of influence;
- Coordinated evaluation of joint development associated with the proposed Omnitrans Transcenter at the E Street Station (ongoing);
- Proposed a design vision that illustrates the unique opportunities of TOD development;
- Proposed recommendations that better integrate local and regional bus service; and
- Included overall transit village development recommendations to provide guidance through the next planning phases.

This recommendations report presents the results of these actions and provides a vision plan for the E Street Station area. The report is intended as a beginning guide for the transition of the project site from a transit station to vibrant Transit Village. It provides urban design guidance and recommendations on acquiring land, coordination strategies, and redevelopment efforts in the downtown.



Site Context

The physical and regulatory conditions are beginning to change in support of transit oriented development as a means of revitalizing downtown San Bernardino. The recently updated general plan (2005) contains key policies and strategies to support new types of development in the downtown. Additionally, plans for expanded transit service in and around the downtown promise to draw increased investment from the public and private sectors.

General Plan and Zoning

As part of the General Plan, strategic policy areas have been established to help create, preserve, revitalize, and enhance selected areas of the City. The Downtown Strategic Area stretches from 9th Street on the north to Mill and Rialto Streets on the south, from Interstate 215 on the west, to Waterman Avenue on the east. The General Plan lists 13 strategies to guide and stimulate change in the downtown.

According to the General Plan, “the large cluster of existing multi-government offices in the City, particularly in the downtown, will provide a sustained demand for business, retail, and professional services in the City.”

Office uses, however, are not considered sufficient by themselves to revitalize the downtown. The General Plan foresees a need for new mixed-use residential developments to stimulate further investment and support the addition of new retail space in the downtown.

There is also a strong interest in linking the Arrowhead Credit Union Park to the surrounding downtown, along with complimentary retail services, including sports-related uses, restaurants, and other pedestrian friendly venues.

The current land use plan is not as supportive and much of the downtown surrounding the E Street Station is designated for single-use commercial and industrial development, with land use districts such as Central City South 1 (CCS-1), Commercial General (CG-1), and Industrial Light (IL). These land use districts permit only commercial, office, and light industrial uses. North of Second Street, however, the Commercial Regional-Downtown (CR-2) District does permit a wide mix of residential and non-residential uses.

For the E Street Station and much of the surrounding downtown, the addition of new residential development mixed with retail and office would require general plan and zoning amendments.

2005 San Bernardino General Plan Downtown Strategic Area Strategies

1. Promote downtown revitalization by seeking and facilitating mixed-use projects (e.g. combinations of residential, commercial, and office uses).
2. Continue to facilitate the development of outdoor dining in the downtown area.
3. Allow the ground floor of new non-residential and residential structures to incorporate “pedestrian-active” retail uses (restaurants, florists, gift shops, bookstores, clothing, shoe repair, etc.).
4. Accommodate residential units above the first floor of commercial structures provided that:
 - a) The impacts of noise, odor, and other characteristics of commercial activity can be adequately mitigated; and
 - b) A healthy, safe, and well-designed living environment with a complement of amenities can be achieved for the residential units.

5. Buildings in the downtown should be designed, sited, and massed to convey an “urban-like” character; locating structures in proximity to sidewalks, using architectural design styles and materials which visually convey a sense of “mass” and “permanency” (such as granite and marble, defined piers and columns, etc.), incorporating multiple stories, and similar techniques.

6. Preserve significant historic structures and community features and incorporate historic themes and community symbols into the design of the Downtown area to maintain a strong character and distinguish it as the City’s historic/ civic core.

7. Provide generous pedestrian amenities such as wide sidewalks, ground-level retail uses, parkways, vintage streetlights, sitting areas, and street furniture.

8. Establish a consistent street lighting type in the downtown area utilizing a light standard that is compatible with the historic commercial fabric and coordinated with an overall street furniture and graphics/signage program.

9. Encourage that buildings be located within twenty-five feet of the sidewalk, except for setbacks to allow outdoor dining, pedestrian oriented plazas, courtyards, and landscaped areas.

10. Commercial and office buildings should be designed to enhance pedestrian activity and convey a “human scale” at their street elevation.

11. Parking should be located to the rear, below, or above the ground floor of the street-facing commercial/office structure.

12. Attract/develop high end housing in the Downtown Strategic Area, especially adjacent to parks and other desirable amenities.

13. Encourage mixed use development and pedestrian friendly uses/development adjacent to transit stops.

Transit Systems

The new Transcenter has the potential to serve local Omnitrans routes, the sbX Bus Rapid Transit (BRT) system, intercity buses (Greyhound), Victor Valley Transit Authority (VFTA), SunLine Transit Agency, Riverside Transit Agency (RTA), Mountain Area Regional Transit Authority (MARTA), and Metrolink. BRT and Metrolink systems are highlighted below.

Bus Rapid Transit

As a result of the rapid increase in the Valley’s population, as well as the continuing growth of employers and educational institutions (e.g., Cal State San Bernardino (CSUSB) and Loma Linda Medical Center) in the East Valley, there is continuing need for transit improvements to support commuting and travel needs.

One response to this growth in transit ridership can be seen in the development of the San Bernardino Express (sbX) Bus Rapid Transit (BRT) service. sbX will be the first use of BRT in San Bernardino and significantly enhance

carrying capacity and service to the area. Based on initial studies, seven candidate corridors were identified in the San Bernardino Valley, of which two would serve the Transcenter facility.

The first corridor would be along E Street and will travel between CSUSB and the Loma Linda University Medical Center. The second corridor would be the Foothill Boulevard East corridor, which will travel between downtown San Bernardino and the Fontana Metrolink station and transit center along Foothill Boulevard.

Metrolink

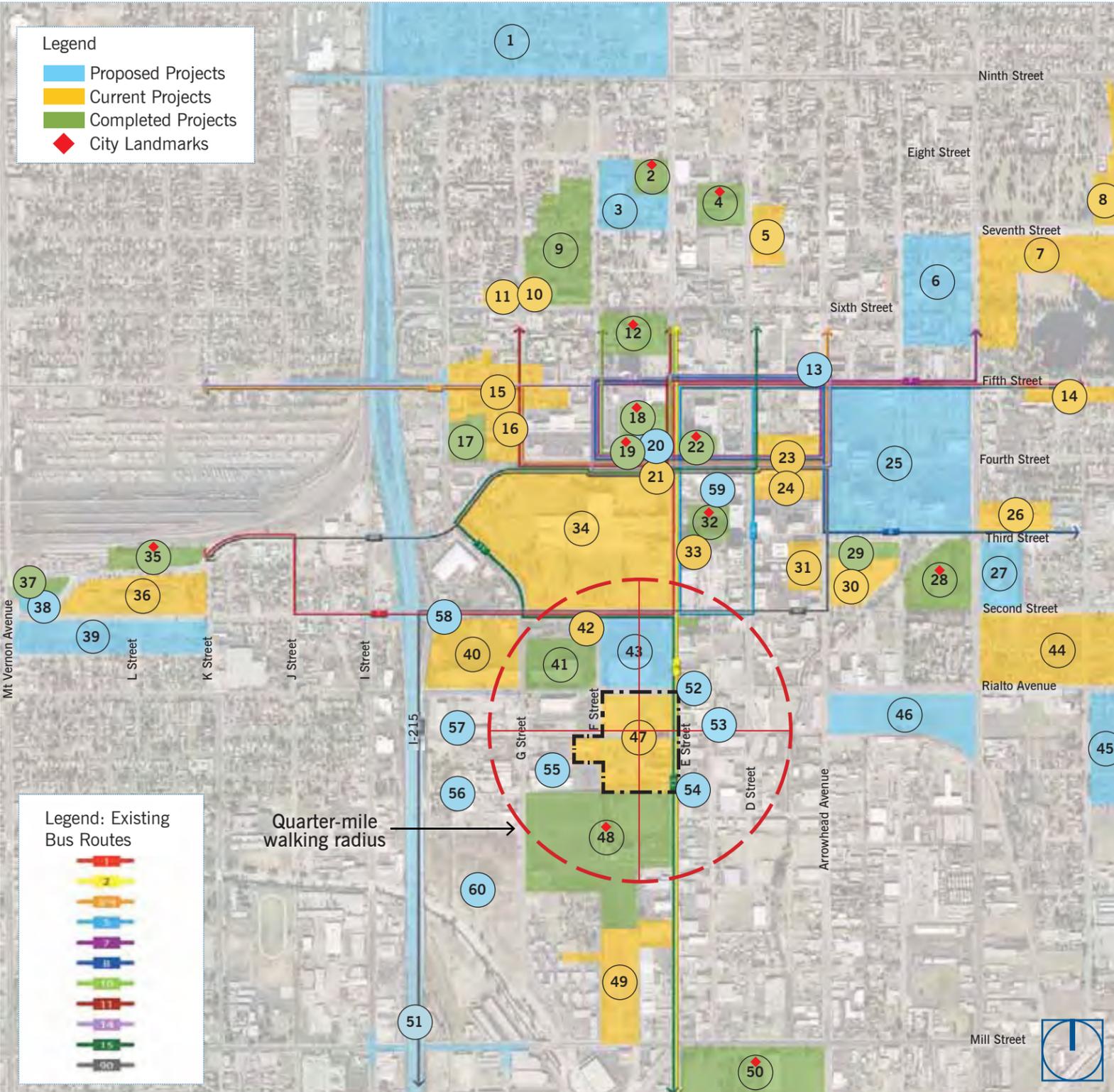
As planned, Metrolink would expand rail service along the railroad right-of-way from University Street in Redlands to the existing San Bernardino Metrolink Station. There would be a total of seven stations, including E Street Station and a terminus at the San Bernardino Metrolink Station with a set of feeder bus routes.

Much of the existing track would be constructed to double-track to allow for 15-minute headways all day. Total travel time from Redlands to the San Bernardino Metrolink Station would be approximately 15 minutes with an average speed of 40 mph.





Land Use Opportunities and Constraints

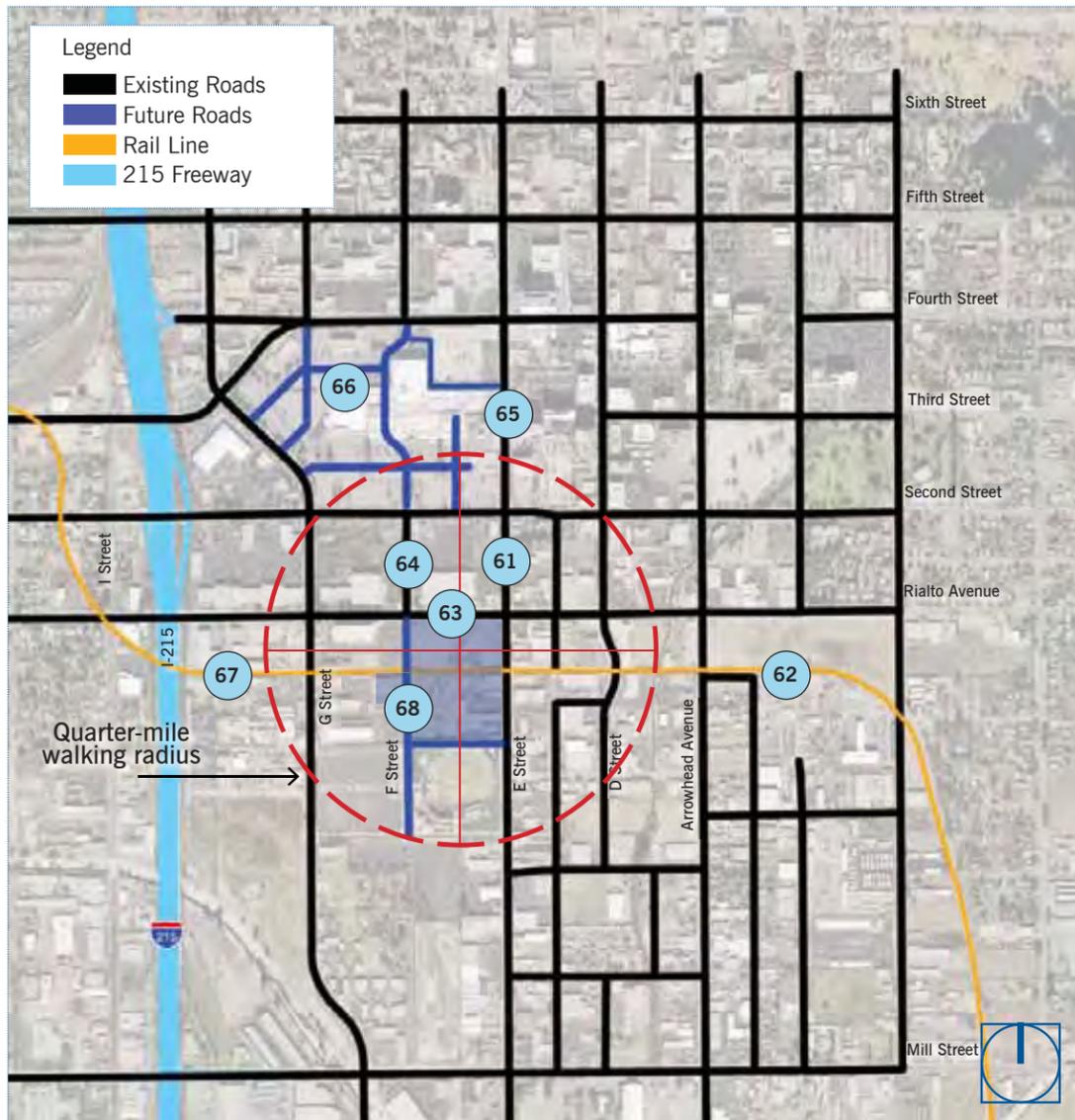


Location	Project
1	Proposed North Lake Project
2	City Landmark: Historic Sturges Theatre
3	City School District Administration Campus
4	City Landmark: City Police Department
5	Inland Medical Center Project
6	Proposed Lincoln II Elementary School
7	Seccombe Lake Mixed Use Project
8	Proposed City Park Complex
9	Jones Elementary School
10	ANR Live/Work Development
11	ANR Condo Development
12	City Landmark: Feldheym Central Library
13	Proposed Office Building
14	ANR Residential Infill Project
15	Downtown Mixed Use Project
16	Renovated Holiday Inn
17	Telacad Senior Housing
18	City Landmark: CinemaStar Theatre
19	City Landmark: Historic California Theatre
20	Opportunity to intensify retail uses: proposed retail project
21	Historic Woolworth Renovation
22	City Landmark: Caltrans Building
23	Anaheim Sports University
24	International Food Court
25	Proposed County Superblock
26	Meadowbrook Lofts Phase I
27	Proposed Meadowbrook Mixed Use Project
28	City Landmark: Meadowbrook Park
29	Court Parking
30	Future County Justice Center
31	County Justice Center Phase I
32	City Landmark: City Hall
33	Clarion Hotel Renovation
34	Carousel Mall Mixed Use Project
35	City Landmark: Santa Fe Depot Restoration
36	La Placita Retail Center
37	Metrolink Parking Structure
38	Proposed Retail Project
39	La Placita Mixed Use/TOD Phase II

Location	Project
40	Marshall's Plaza Renovation
41	Caltrans Building
42	Starbucks
43	Proposed Food 4 Less Center Renovation
44	Meadowbrook Residential Infill Project
45	Burbank II Elementary School
46	Proposed Business Park
47	Proposed E Street Transit Station Center
48	City Landmark: Arrowhead Credit Union Ballpark
49	Opportunity to function as an anchor: Arrowhead Credit Union Office Building
50	City Landmark: NOS Events Center
51	Street Improvements
52	Corner anchor needed at intersection of Rialto Avenue and E Street
53	Opportunity for office and mixed use projects
54	Need exists to create a cohesive streetscape along E Street
55	Potential Gas Company relocation site
56	Opportunity to encourage higher order office
57	Opportunity to encourage industrial uses to relocate
58	Need exists for landscaping to enhance the gateway potential at Second Street and I-215
59	Redevelopment opportunity: underutilized potential for commercial retail
60	Opportunity for development of large area of vacant and underutilized land
see map on next page	
61	Future BRT (sbX) Corridor on E Street
62	Rail corridor (extension to Redlands)
63	Bus access to E Street Station should stay north of railway tracks
64	Pedestrian improvements and links needed along F Street
65	Future pedestrian overpass
66	Future streets that will bring back grid pattern
67	Improved to double track system
68	Extension of F Street



Circulation Opportunities and Constraints



Opportunities & Constraints

A need exists to bring economic and social life back into downtown San Bernardino and in the surrounding districts and neighborhoods through new residential, retail, and office development along the transit corridor and at the E Street Station. Creating new economic bases in Downtown would generate new consumer options, employment opportunities, and revenue opportunities for both the City and the residents in the community.

To achieve success, such development will need to take advantages of key opportunities but will also face certain constraints. The following analysis provides guidance for future growth, addresses opportunities to reinforce existing land uses, utilize and implement new land use designations, and looks at constraints that need to be addressed prior to further development.

Opportunity: Downtown Corridor

The opportunities sited from the proposed, current, and completed projects shown in the Land Use Opportunities & Constraints illustration demonstrate that the private and public sectors are investing in downtown San Bernardino. Some of these projects are within the downtown area and along the E Street corridor, whereas others are located just outside of the walkable downtown area.

There is an opportunity for the City to build upon this activity and establish commercial corridors concentrating retail and office uses along D, E, F, and G Streets. By establishing a commercial corridor along E Street, the City would be able to attract revenue from local residents as well as from regional traffic that pass through the city.

Additionally, there are opportunities to develop mixed use residential projects between D and E Streets. Such projects would add to the economic and social strength in downtown San Bernardino. Including residential uses as a part of mixed use developments surrounding E Street would draw community life back into the downtown and support the establishment of a main commercial corridor.

Opportunity: Proposed & Current Projects

A great deal of activity is currently taking place in downtown San Bernardino. The private sector is focusing on introducing mixed use and office developments, including the Seccombe Lake Mixed Use Project, Meadowbrook Lofts, the Arrowhead Credit Union Office Complex, and the rehabilitation of the Carousel Mall site.

The public sector is also investing in public facilities downtown and preparing for future transit systems, such as plans for a County Superblock, and looking at E Street as the home of a multi-modal transit station and as a pilot corridor for bus rapid transit (sbX) service.

Carousel Mall Redevelopment

Redevelopment of the Carousel Mall will mix retail, office, and residential uses on the site, creating a larger scale mixed-use development along the western edge of E Street. The project proposes approximately 710 residential units and 120,000 square feet of retail and office space, generating more economic and residential opportunities within the downtown.

In addition, the Carousel Mall development is located within walking distance to the proposed E Street Station, encouraging a pedestrian-friendly atmosphere in the downtown area. The project also promotes connectivity with plans to continue G and F Streets to link to existing roadways. With the beginnings of a critical mass of residents in the downtown that the Carousel Mall development will provide, the City has the opportunity to coordinate connectivity and development with adjacent projects.

E Street Station

The current plans for the E Street Station propose a multi-modal transit facility that will serve as a focal point for public transportation services in the area as well as act as a stimulus for redevelopment. If developed in conjunction with the surrounding proposed projects and building rehabilitations, the E Street Station will enable downtown San Bernardino to function as a vibrant mixed-use transit-oriented village.

With Omnitrans' plans for a multi-modal transit center acting as the central node for local and inter-city bus routes, Metrolink service, and bus rapid transit (sbX), the E Street Station would function as the origin or destination point for commuters from throughout the Valley. The City has the opportunity to plan for and provide land uses and pedestrian amenities in and around the station to encourage people to stay and connect to the downtown.

In addition to operating as a multi-modal transit center, the E Street Station parcel is



7 Seccombe Lake Mixed Use Project



26 Meadowbrook Lofts, Phase I



34 Carousel Mall Mixed Use Project



49 Arrowhead Credit Union Office Building



ideal for joint use development. With the rail line bisecting the site into north and south pieces, current plans include locating the bus bays and transit station to the north of the rail line, with a mixed use development to the south of the rail line. This would allow the E Street Station to fulfill its potential in providing retail, office, and residential uses adjacent to the transit station. The Economic Feasibility Analysis section of this document further examines the possibilities for joint use development at the E Street Station.

Arrowhead Credit Union Campus

Located south of the Arrowhead Credit Union Ballpark along the western edge of E Street, Arrowhead Credit Union has proposed an office campus project as the Credit Union Headquarters. Comprised of 145,000 square feet of office use, the project also presents opportunities to bring economic and social life to the downtown area.

County Superblock

The County has proposed a superblock of county offices in the northeast corner of downtown San Bernardino. This complex has the potential to add activity to the downtown area, but is also located slightly further than a quarter mile from the E Street Station.

Pedestrian-friendly streets and walkways should be designed into the San Bernardino downtown in order to connect the County offices to the E Street corridor. This would support pedestrian interaction between the County offices and other uses in the downtown.

Opportunity: Existing Street System

The downtown benefits from an existing grid system that has remained relatively intact. With the majority of blocks no longer than 600 feet, the grid system provides a simple and efficient circulation system for pedestrians and transit.

Where the grid system has been disturbed, current and future projects, such as the redevelopment of the Carousel Mall, promise to reintroduce the original grid system. The extension of F Street in particular would enhance walkability and connectivity to uses surrounding the E Street Station.

Strong connections can be found in Second and Fourth Streets. Fourth Street provides a direct connection between the downtown and the Santa Fe Depot—currently the primary hub of commuter traffic in the City. Second Street serves as the primary gateway for vehicles entering the downtown via the 215 Freeway, particularly those traveling to City Hall or the County offices.

Opportunity: Existing Width of E Street

The current E Street right-of-way is wide enough to create a street that is pedestrian friendly and could also accommodate transit services such as BRT. The E Street corridor could serve individual vehicle traffic while also dedicating bus lanes to increase the efficiency of bus service. This can also make the streetscape more pedestrian friendly by separating vehicular and pedestrian traffic.

Opportunity: Historic Structures

San Bernardino benefits from a number of historic structures within the downtown. The preservation of historic structures allows the area to retain a historic feel and sense of downtown culture, in conjunction with the new development that will promote activity.

Constraint: Existing Land Use

Existing land uses within the downtown and specifically surrounding the E Street Station are: auto parts salvaging, auto supply shops, restaurants, motels, a grocery store, and a baseball park. This, in addition to a rail line bisecting the site can make it difficult to market residential development. Often times, noisy industrial neighborhood redevelopment

faces marketability challenges as potential residents can be leery of living in non-residential neighborhoods.

Constraint: Environmental Conditions

The soil condition of some parcels along E Street and G Street may place a constraint on development. Due to previous uses on certain parcels the sites maybe contaminated and now are either undergoing remediation or will likely have to go through remediation before any projects could be built on these sites.

Constraint: Parcel Configuration

The current configuration of parcels within downtown San Bernardino may present constraints to new development. Smaller parcels do not provide sufficient space for the development of retail, office, or mixed uses, and are often a barrier to redevelopment efforts. Parcel consolidation should be encouraged in order to promote new development and build upon the activity within the downtown area.

Additionally, projects currently being proposed should be carefully reviewed for their potential impacts. Such projects may not be supportive of the overall vision for the downtown. Once an inconsistent project is established, it can be difficult to modify or redevelop.

Constraint: Policy Amendments

The current zoning of the site permits only commercial, office, and light industrial uses south of Second Street. However, the Commercial Regional-Downtown District does permit a wide mix of residential and non-residential uses north of Second Street.

To support development within downtown San Bernardino, residential uses should be encouraged in addition to retail and office to promote social activity throughout the day and evening. Consequently, new residential development mixed with retail and office

uses would require general plan and zoning amendments.

Constraint: Project Absorption

Furthermore, the Carousel Mall development, with over 710 townhouses proposed just across Rialto Avenue, may impact the absorption rate of residential development at the “E” Street Station. Alternatively, the upside to the Carousel Mall project is that it will create a residential-friendly feel to the downtown and provide the beginnings of a critical mass of residents within walking distance to the “E” Street Station site—a key component for any mixed-use project with a healthy amount of retail.

Constraint: Parking

As the downtown grows and attracts new users, demand for parking will increase. Although it appears that the downtown area currently boasts a large number of spaces, many parking lots and garages sit vacant while others overflow. Essentially, the downtown area suffers not from a lack of parking, but from an inefficient use and distribution of parking.

The parking structures near City Hall and the CinemaStar Theatre, for example, are either severely underutilized or overutilized despite their relatively parallel proximity. Additionally, Fairview Ford is using Carousel Mall for employee parking. As redevelopment of the Carousel Mall begins, additional parking spaces must be found.

While some may point to the creation of underground or subterranean parking, the costs of such parking can cripple a project financially (more detail on parking costs can be found in the Economic Feasibility Analysis section). To attract new development while providing sufficient parking space, the City will have to consider alternative parking methodologies and practices.

E Street Corridor in 2006



Northeast of E Street Station site



Southeast of E Street Station site





Stakeholder Workshop

Purpose

During the opportunities and constraints process of this project, a Stakeholder Workshop was held on October 18, 2006 with members of the business community, local developers, City officials, transit agency representatives, and residents. The purpose of the meeting was to obtain input and comments from the stakeholders pertaining to the development of the downtown area as it relates to the proposed E Street Station.

Community Feedback

The feedback received from stakeholders included concerns and ideas for the future development of the area surrounding E Street Station.

Overall Vision

- Stakeholders stated that the the E Street Station and surrounding downtown should function primarily as a jobs center that also offers dining and residential opportunities. The E Street Station should function as more than just a transit center and should incorporate a mix of residential, office, and commercial uses.

Land Use

- Stakeholders specified several commercial uses for the downtown area, as well as the need to incorporate different types of uses to support an active environment throughout the day.
 - Promote a balance of uses to ensure development stability.
 - Encourage restaurants and eating establishments to capitalize on existing demand.
 - Use mixed use where appropriate.

Design

- Several design suggestions were cited to take advantage of the site's existing conditions.
 - The viewshed from the freeway to the southwest of the influence area provides

exposure for office and commercial uses.

- A buffer for transit lines is necessary to absorb noise resulting from the tracks.
- Emphasize street improvements to promote safety and support activity.

Connectivity

- Establish a local trolley or shuttle service that connects the downtown and also connects development to the existing senior community to the north and other adjacent residents.

Stability

- As E Street Station becomes a catalyst for development, ensure that appropriate development proceeds in a stabilized and coordinated manner.
 - With an economic analysis, development may be appropriately directed and phased.
 - Design also encourages stability with the “eyes on the street” mentality – a strong street design with sufficient lighting, access, and other elements also works to promote safety and stability.

General Plan

- There is a need to build flexibility into the General Plan to encourage appropriate land uses surrounding the E Street Station.

Responsibility

- Stakeholders realize the value of a vision for the E Street Station downtown area, and the need for City officials to take responsibility and make a strategic commitment to this vision.
 - This commitment should be focused on long term goals for the area, and should not be limited by an elected official's term.
 - The City should incorporate a long term plan and promote communication and coordination between stakeholders to ensure realization of downtown development.

Rental housing

- Stakeholders expressed concern over the current condition of disrepair in rental housing

developments. However, it was recognized that rental housing provides for residents such as teachers, police, and students.

- An economic modeling and phasing analysis will be necessary to determine creative ways to apply rental housing.
- Downtown San Diego serves as an example of incorporating rental housing by first establishing an owner base.

Existing Amenities

- Development within the downtown area should build upon the existing development.
 - Take advantage of the adjacent senior community and expand upon the contiguous educational campus;
 - Build upon the demand for restaurant uses, reflected in the high demand for businesses in Hospitality Lane to the south.

At the end of the workshop, stakeholders were eager to further define the scope of the project and efforts needed to for development surrounding the E Street Station. Although premature for the workshop, this energy and momentum should be directed towards formulating a more detailed vision for the downtown area.

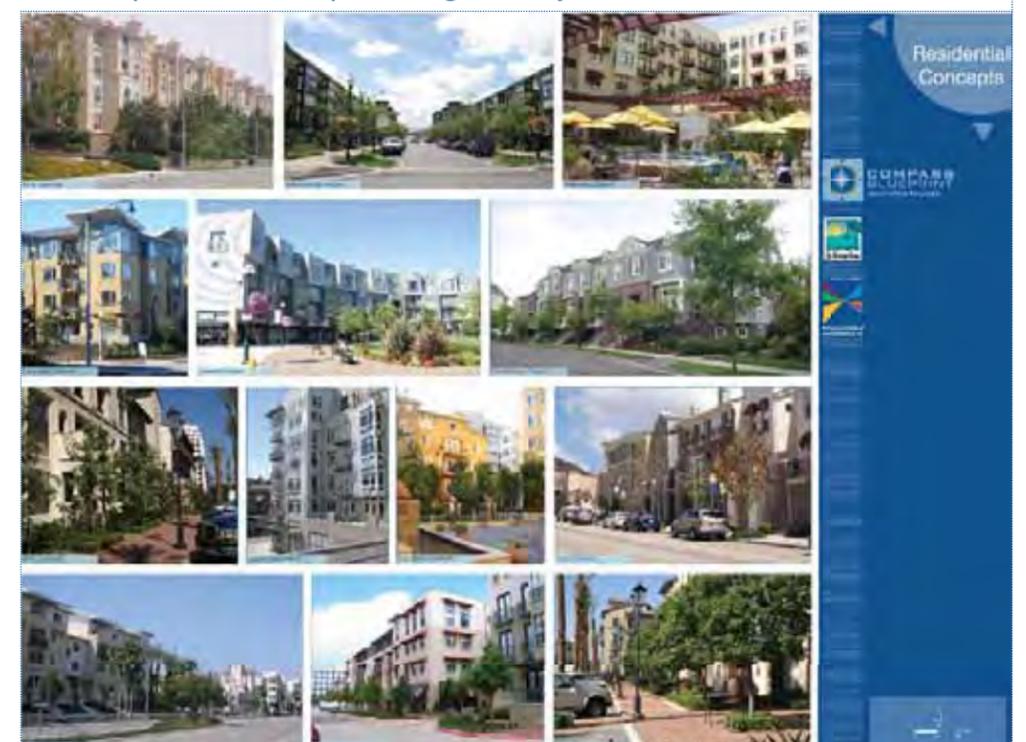
The Design Concepts (on page 18) reflect the feedback received from the Stakeholder Workshop, and serve as recommendations for future development within the downtown area. The points summarized here, in addition to the Economic Feasibility Analysis and Design Concepts, should comprise a base for the next phase of study and implementation of the E Street Station Transit Village.



Workshop Exhibit - Examples of Successful Transit Villages

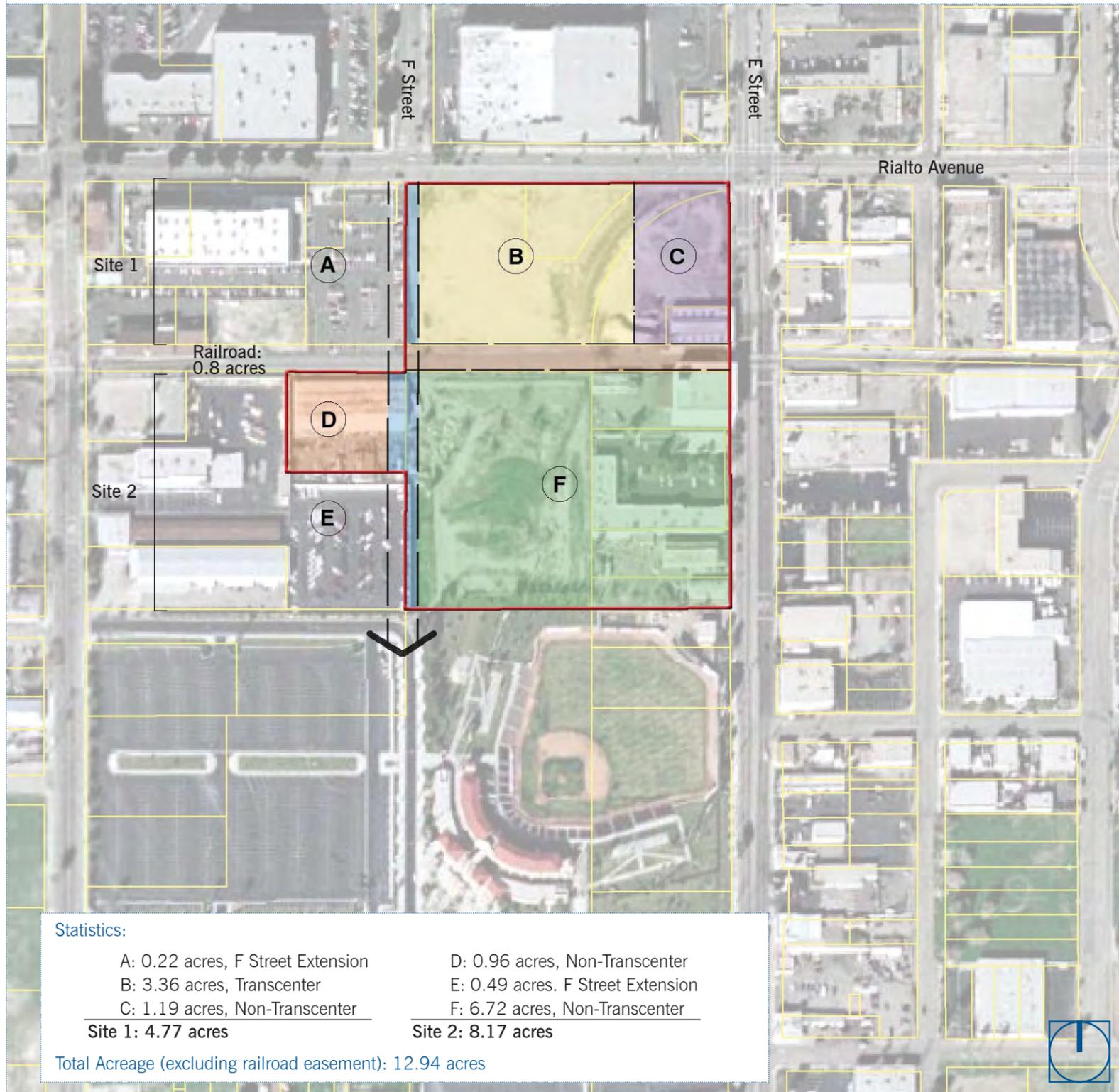


Workshop Exhibit - Examples of High Density Residential





E Street Station Project Site



Economic Feasibility Analysis

As the centerpiece of future transit services in downtown San Bernardino, the E Street Station may play a catalytic role in attracting additional development into the City and can serve as a barometer as to the type of development that is feasible in the short or long term. Accordingly, an economic analysis has been completed to study mixed-use scenarios for the E Street Station within the context of the City's goals and market conditions. The purpose behind the economic analysis is to determine the financial feasibility of three development scenarios.

Essentially, this analysis estimates how much a developer is willing to pay for the land given the development constraints and industry expected returns using a "residual land value" model. Comparing the residual land value with the expected market land value and other acquisition costs calculates whether a project is feasible or if a financial gap exists (when the market land value is greater than the residual land value). Since the site lies within a redevelopment area, a financial "gap" could reflect the subsidy that would be required by the City Redevelopment Agency (RDA).

In sum, the fundamental questions that are answered include:

- What is the mix of uses foreseen on the site by the City?
- How much development, and in what proportion, could be constructed on the site given its physical constraints?
- Do the development scenarios prove to be financially feasible from the developer's perspective?
- If not, how large is the financial feasibility gap?

These questions are answered using analyses grounded in the realities of development finance. However, a degree of uncertainty exists in any analysis based on the real estate market. It is difficult to predict the estimated selling prices, lease rates and absorption rates of residential or retail space in a project to be built at some uncertain time in the future, especially in an environment of expected interest-rate increases. With this in mind the results are presented in a range of values to capture uncertainties reflective of low and high market conditions.

Three mixed-use scenarios are examined to provide insights into plausible levels of density, commercial space, and parking arrangements on the E Street Station sites—two sites totaling 12.94 acres to be purchased by Omnitrans (see graphic at left).

Site 1, situated north of the rail line, is largely vacant and is proposed by Omnitrans to contain the Transcenter, offering 28 bus bays and a future Metrolink Station. The Transcenter would consume about two-thirds of Site 1, leaving approximately one acre for other development.

Site 2, also largely vacant, represents the larger of the two sites on which to construct additional development. Both sites straddle what is proposed to be an extension of F Street.

All three scenarios analyze development at greater intensities than those considered by the Omnitrans San Bernardino Transcenter Site Selection Report (May 3, 2006).

2006 Report Scenario: 70,800 square feet of leasable retail space and 15,000 square feet of leasable office space served by 189 surface parking spaces.

Scenario One: a mix of 308 one- and two-bedroom condo units at a density of 47 units per acre, along with 62,000 square feet of leasable retail space. A combination of 168 surface, 206



E Street Station site in 2006

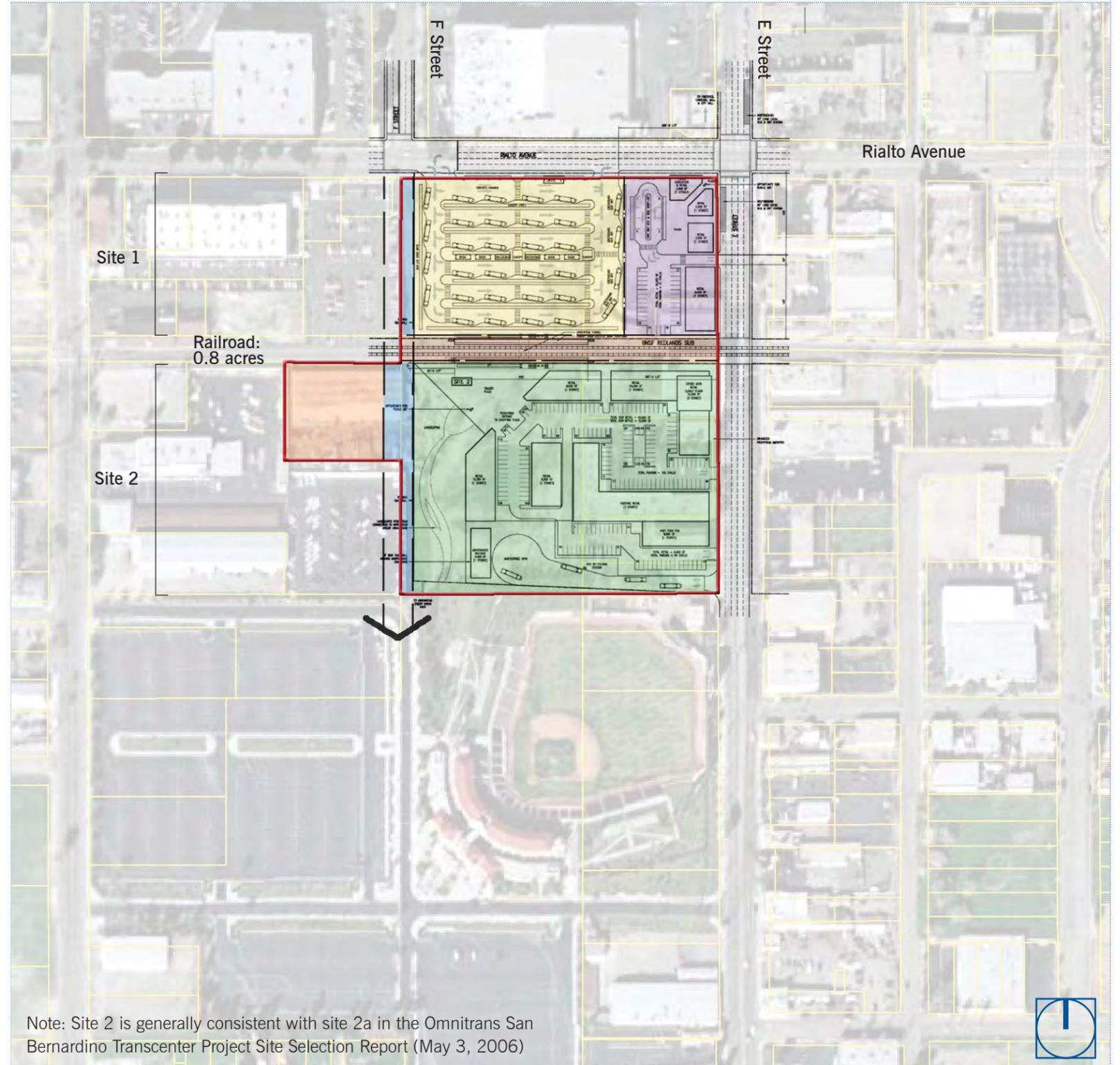


structured, and 438 subterranean parking spaces serve the project.

Scenario Two: a mix of 252 one- and two-bedroom condo units at a density of 38 units per acre, along with 46,000 square feet of leasable retail space. A combination of 30 surface and 608 structured parking spaces serve the project.

Scenario Three: a mix of either Scenario One or Two, plus 191,000 square feet of leasable office space constructed above the Transcenter. The additional office space would be served by 708 structured parking spaces, also located above the Transcenter. With this configuration, Scenario Three examines the feasibility of developing the air rights above the Transcenter.

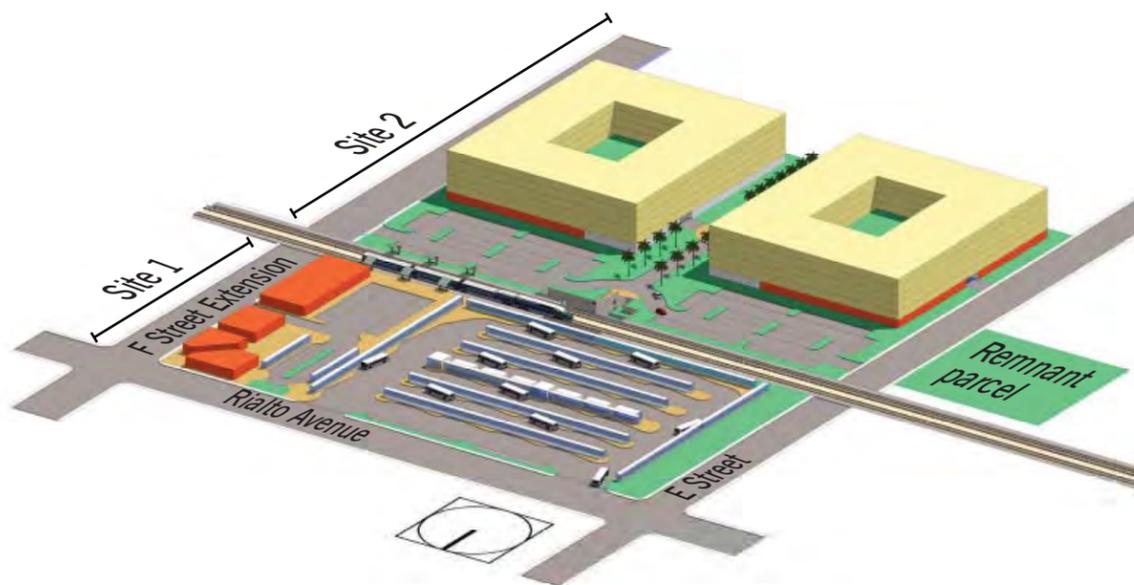
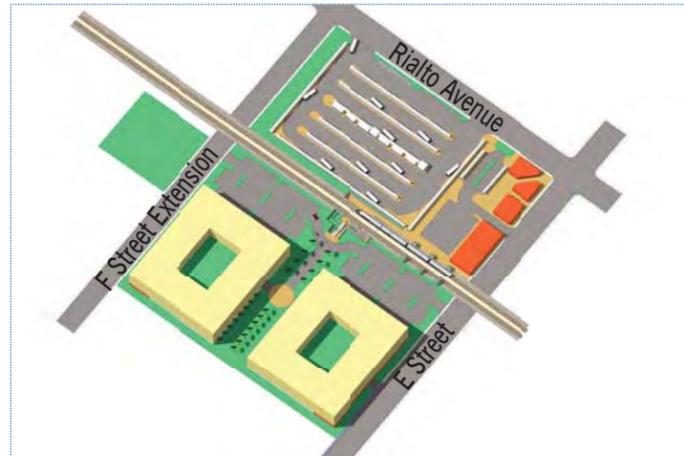
E Street Station Development Option from Omnitrans Transcenter Study



Note: Site 2 is generally consistent with site 2a in the Omnitrans San Bernardino Transcenter Project Site Selection Report (May 3, 2006)



Scenario One: Development Prototype Rendering



- Residential
- Retail
- Parking

Development Assumptions: Scenario One

Scenario one analyzes only the eastern one-third of site 1 (52,025 square feet)—the remaining area devoted to the Transcenter is left out as it will be constructed, owned, and operated by Omnitrans. Only 15,000 square feet of retail space and surface parking on the eastern one-third of site 1 is considered in the analysis. Development of additional retail or residential units above the space is not assumed.

Additionally, the protruding portion of site 2 (63,360 square feet) will be separated from the main site due to an expected extension of F Street (21,760 square feet) to the baseball stadium. Due to this separation, a 41,600 square foot portion will remain and would not be considered feasible for concurrent development with the main site. Both the F Street extension and remnant 41,600 square foot parcel are, therefore, not included in the scenario development. In theory the remnant portion could be sold to recoup land acquisition costs and further reduce the gap.

Scenario One models a four-story vertical mixed-use development for site 2. This prototype affords a total of approximately 318,000 square feet of habitable space throughout four floors with the first floor a mix of retail and podium parking and 1.25 levels of below-grade parking.

After accounting for common areas, the habitable space yielded 47,000 square feet of leasable retail and a mix of 308 one- and two-bedroom condo units at a density of 47 units per acre. The figures to the left present three-dimensional renderings of the model evaluated for Scenario One. The renderings are intended to present a conceptual picture of the development prototype and understand the size and relationship of the buildings, Transcenter, and open spaces on the project site.

A total of 812 parking spaces would be required using the City standards of 1.5 spaces for 1 bedroom units, 2 spaces for 2 bedroom units, and 1 space for every 250 square feet of commercial development. Table 1 and Charts 1–4 show the mix of uses and parking spaces in more detail.

Based on the constraints previously mentioned for this area, Scenario One assumes the following for site 2: 42% of the area is devoted to building envelope¹, 25% to open space, 15% is devoted to uncovered surface parking, and 18% of non-developable space. The large proportion of open space provides a large pedestrian plaza considered desirable for the Transcenter, the residents and patrons of potential mixed-use development, and the people traveling to and from the Arrowhead Credit Union Park.

¹The building envelope is further reduced by 80% to account for building setbacks. This is greater than normal due to the increased distance required for development adjacent to railroad tracks.



Table 1: Scenario One Land Use Mix

Parcel Size	351,094 SF or 8.06 acres	
Density	46.63 units/acre	
Allowed number of units	308 units	
	% of Total Area	Size (SF)
Only Site 2		
Open Space	25%	87,774
Building Footprint*	42%	147,296
Uncovered Surface Parking	15%	52,664
F Street (extension)	6%	21,760
Remainder of Site 2	12%	41,600
Building Composition		
Vertical Mixed Use Component	100%	—
Ground Floor	—	117,837
Parking	60%	70,702
Retail	40%	47,135
Residential	0%	—
Second Floor***	100% residential “for sale” condos	111,945
Third Floor***	100% residential “for sale” condos	106,053
Fourth Floor***	100% residential “for sale” condos	100,162
Fifth Floor***	100% residential “for sale” condos	—
Site 1 Retail Component	100%	15,000
Townhouse Component	0%	—
Total Site Building Footprint**	80%	117,837
Residential Composition		
Vertical Mixed Use Component****	100%	—
Number of 1 bedroom units	45%	173
Unit Size (SF)	700	—
Number of 2 bedroom units	55%	135
Unit Size (SF)	1,100	—
Townhouse Component	—	—
Unit Size (SF)	1,200	—
Total Number of Units	—	308
Total Residential Space (SF)	—	318,160
*Including sidewalks and setbacks.		
**Area assumptions includes driveway space for parking and building common areas but excludes sidewalks and setbacks.		
***Area assumptions include the following first story setbacks:		
First floor: 100% of site buildable area		
Second floor: 95% of site buildable area		
Third floor: 90% of site buildable area		
Fourth floor: 85% of site buildable area		
****The number of condo units accounts for 15% non-sellable residential common areas.		

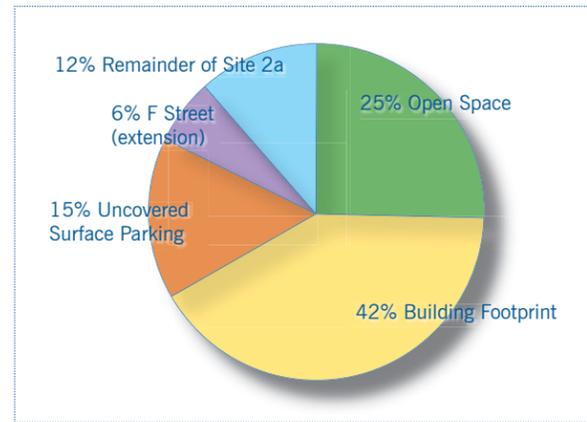


Chart 1: Scenario One Land Use Mix

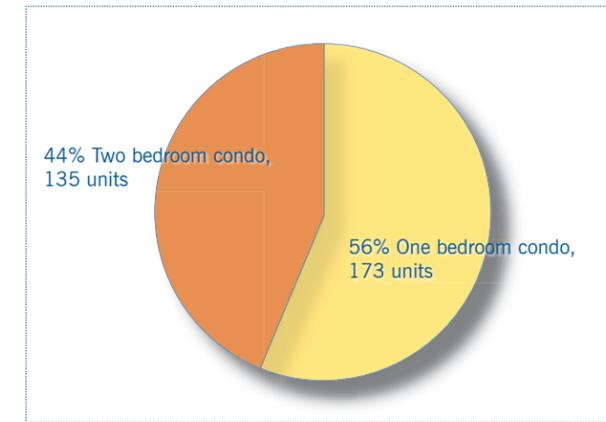


Chart 3: Scenario One Residential Composition

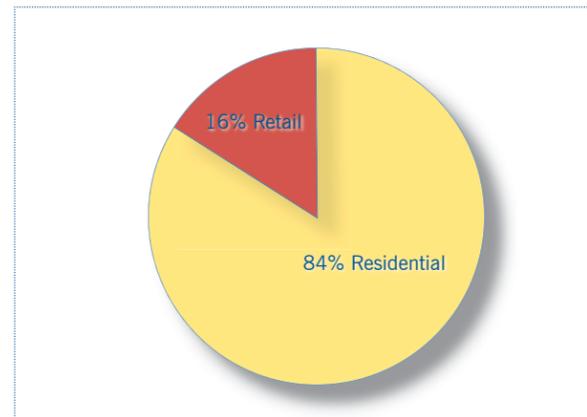


Chart 2: Scenario One Building Composition

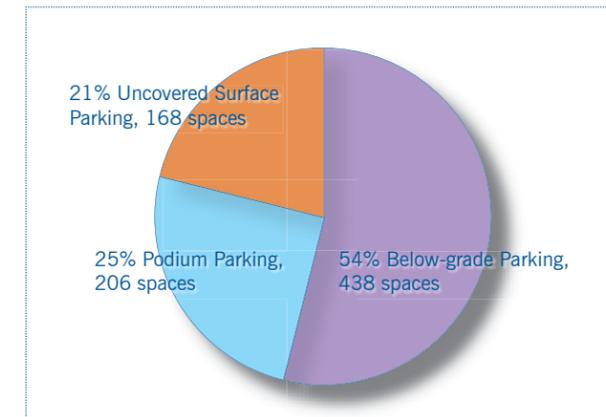
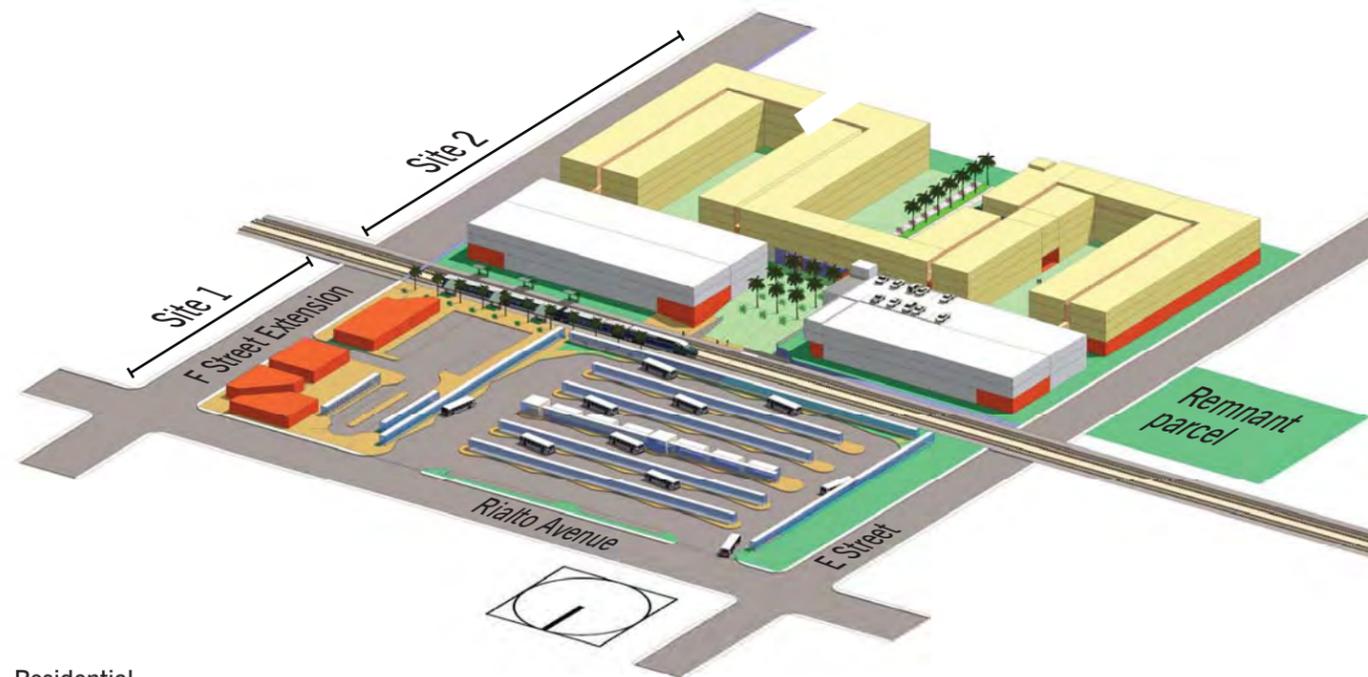
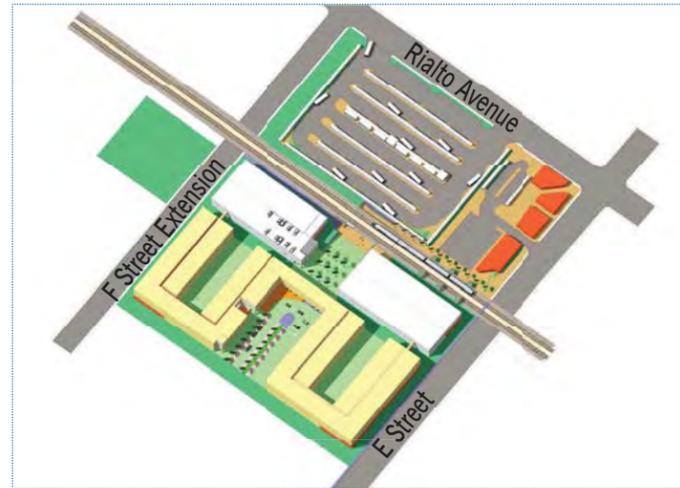


Chart 4: Scenario One Parking Composition



Scenario Two: Development Prototype Rendering



- Residential
- Retail
- Parking

Development Assumptions: Scenario Two

Scenario Two carries the same assumptions for site 1 as in Scenario One—namely that only one-third of the area is part of the project and has the same mix of retail and surface parking. The portion of site 2 separated by the expected continuation of F Street (63,360 square feet) is also omitted. In theory, the portion not dedicated for roadway (41,600 square feet) could still be sold to recoup land acquisition costs and further reduce the gap.

Scenario Two considers a less intense mixed-use alternative that moves the parking areas out from under the buildings to explore the financial impacts of parking construction. Sometimes referred to as a “wrap” product, the development prototype positions the residential or commercial buildings so that they “wrap” around the parking, allowing parking to be constructed above ground and often at the same level for the residents or businesses of each floor. The prototype displayed is a variant of the “wrap” product in that the parking and residential and commercial buildings are only connected by pedestrian bridges.

In essence, Scenario Two is a less intense four-story, vertical mixed-use project. Compared to the Scenario One condition with 308 units and 88,000 square feet of open space, the second scenario consists of 252 units with over 100,000 square feet of open space. All of the residential units are located in two buildings that surround an open courtyard with ground-floor retail located on the corners and street fronts. The 38 units per acre density is less than the maximum of 39 units per acre permitted by the San Bernardino Zoning Code for high density multi-family development.

Fewer units enable all the parking to be above-grade in two separate parking structures that connect with the two mixed-use buildings.

In so doing, costly below-grade parking is eliminated. Furthermore, retail space in this second scenario is also reduced and replaced by residential units; Scenario Two has only 31,000 square feet of retail on site 2 as compared to 47,000 square feet in Scenario One. As a result of the decrease in unit count and retail square footage, Scenario Two commands only 638 parking spaces while Scenario One models 812.

The figures to the left present three-dimensional renderings of the model evaluated for Scenario Two. The renderings are intended to present a rough picture of the development prototype and understand the size and relationship of the buildings, Transcenter, and open spaces on the project site.

The overall land use mix on Site 2 is 30% open space, 27% building envelope, 25% structured parking envelope and a total of 18% non-developable space. Table 2 and Charts 5–8 show the mix of uses and parking spaces in more detail.



Table 2: Scenario Two Land Use Mix

Parcel Size	351,094 SF or 8.06 acres	
Density	38.15 units/acre	
Allowed number of units	249 units	
	% of Total Area	Size (SF)
Only Site 2		
Open Space	30%	105,328
Building Footprint*	27%	94,795
Structured Parking Footprint	25%	87,610
F Street (extension)	6%	21,760
Remainder of Site 2	12%	41,600
Building Composition		
Vertical Mixed Use Component	100%	—
Ground Floor	—	75,836
Parking	0%	—
Retail	26%	19,717
Residential	74%	56,119
Second Floor***	100% residential “for sale” condos	72,044
Third Floor***	100% residential “for sale” condos	68,253
Fourth Floor***	100% residential “for sale” condos	64,461
Fifth Floor***	100% residential “for sale” condos	—
Structured Parking Component	100%	—
Ground Floor	—	70,088
Parking	84%	58,874
Retail	16%	11,214
Second Floor***	100% parking	70,088
Third Floor***	100% parking	70,088
Fourth Floor***	100% parking	—
Site 1 Retail Component	100%	15,000
Townhouse Component	0%	—
Total Site Building Footprint**	80%	75,836
Residential Composition		
Vertical Mixed Use Component****	100%	—
Number of 1 bedroom units	45%	142
Unit Size (SF)	700	—
Number of 2 bedroom units	55%	110
Unit Size (SF)	1,100	—
Townhouse Component	—	—
Unit Size (SF)	1,200	—
Total Number of Units	—	252
Total Residential Space (SF)	—	260,887

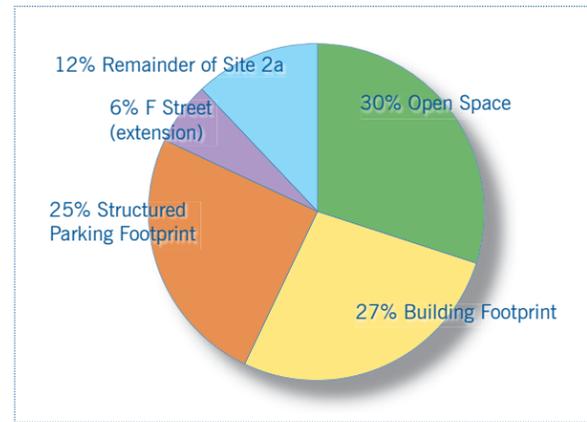


Chart 5: Scenario Two Land Use Mix

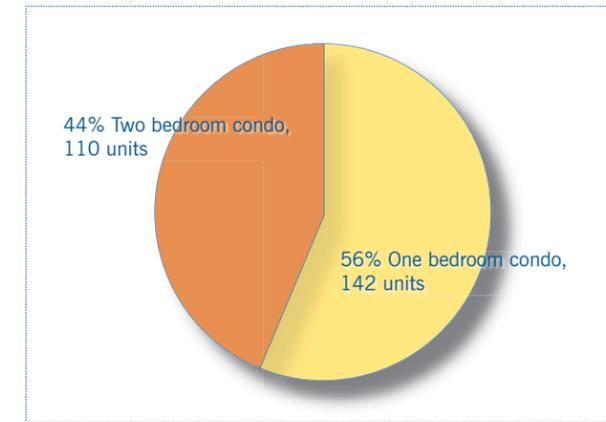


Chart 6: Scenario Two Residential Composition

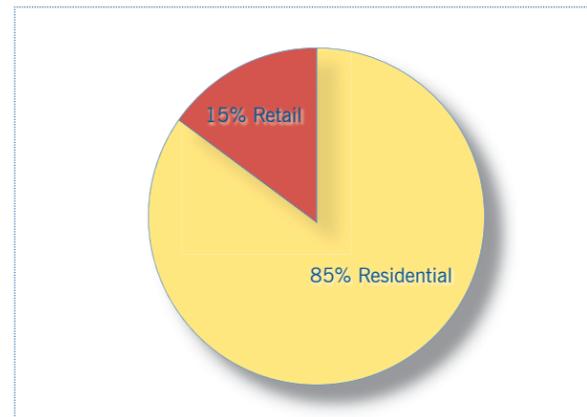


Chart 7: Scenario Two Building Composition

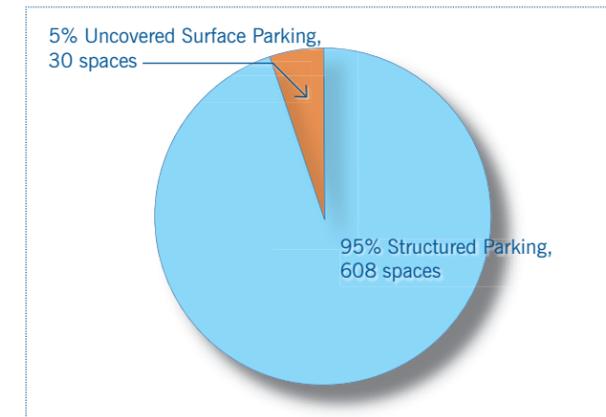
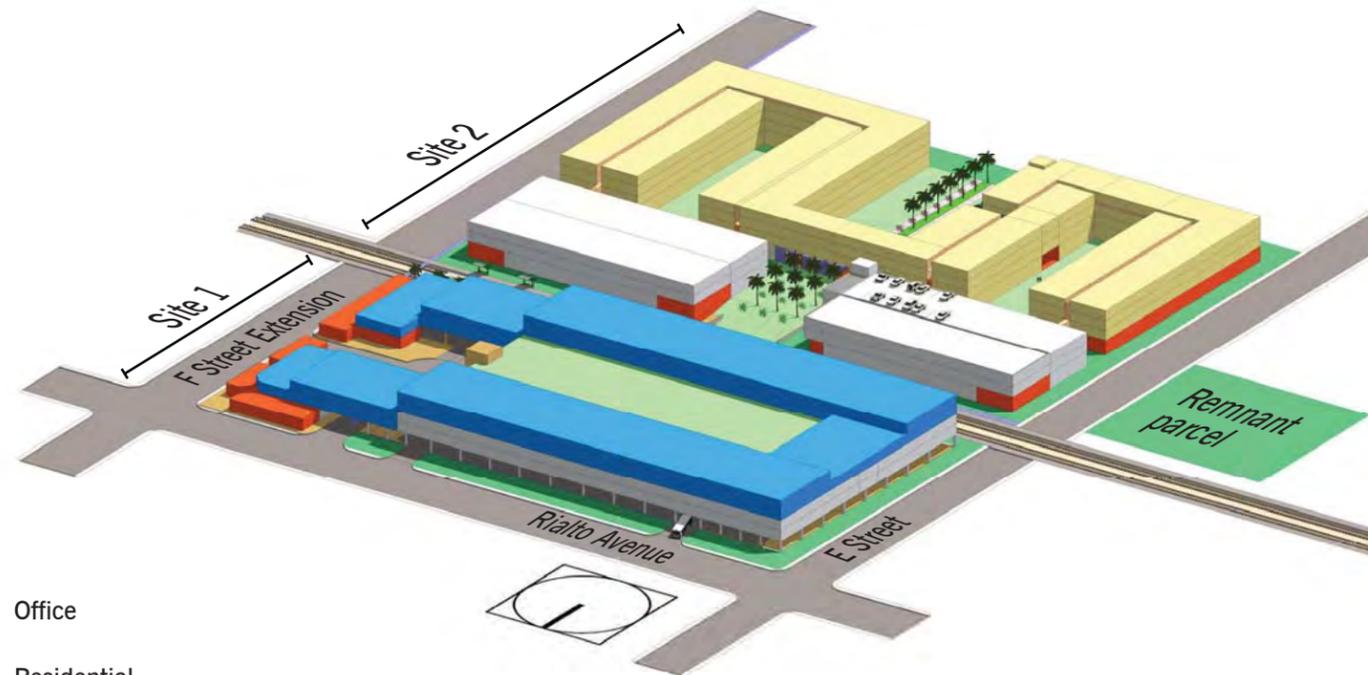
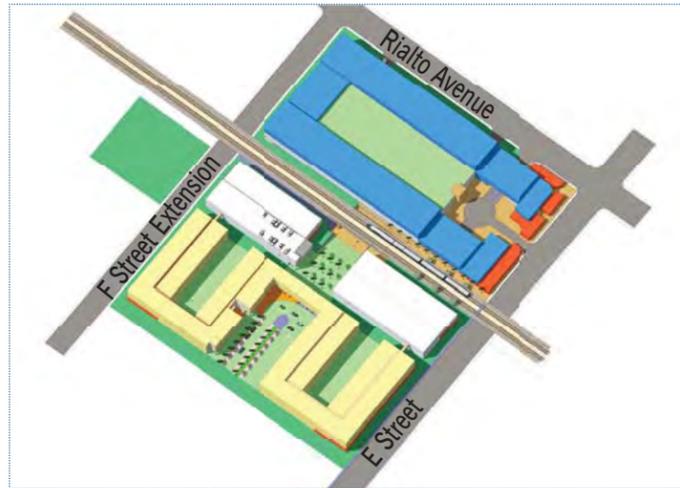


Chart 8: Scenario Two Parking Composition

*Including sidewalks and setbacks.
 **Area assumptions includes driveway space for parking and building common areas but excludes sidewalks and setbacks.
 ***Area assumptions include the following first story setbacks:
 First floor: 100% of site buildable area
 Second floor: 95% of site buildable area
 Third floor: 90% of site buildable area
 Fourth floor: 85% of site buildable area
 ****The number of condo units accounts for 15% non-sellable residential common areas.



Scenario Three: Development Prototype Rendering



- Office
- Residential
- Retail
- Parking

Development Assumptions: Scenario Three

Scenario Three models development above the proposed Omnitrans Transcenter. This scenario considers the feasibility of developing the air rights of Omnitrans and assumes a zero-dollar land cost for the potential developer. Essentially, Scenario Three sought to determine whether an intensification of the Transcenter site would be financially beneficial to the project.

It is important to note that in the third scenario, only site 1 is assessed. The development of site 2 is analyzed in Scenario One and Two. The assumptions for site 1 allow for the Transcenter and previously assumed 15,000 square feet of retail development, but also adds four floors of development on top of the Transcenter and retail buildings.

The ground floor would provide the bus capacity as outlined in the Omnitrans Bus Depot Study, but would need to include additional infrastructure and access to allow four additional floors. The 2nd and 3rd floors would be devoted to structured parking with access from the Bus Depot, while the 4th and 5th floors would be devoted to leasable office space.

The top floors would provide 191,000 square feet of office space that would command 636 parking spaces. The two floors of structured parking that are located between the bus depot and the office space would provide a total of 708 parking spaces—more than enough to accommodate the office space and possibly some additional parking space for Metrolink riders. Table 3 and Figures 9-12 illustrate this mix of uses and required parking spaces.



Table 3: Scenario Three Land Use Mix

Only Site 1 (Site 2 remains the same as in Scenarios One and Two)		
Parcel Size	207,781 SF or 4.77 acres	
Bus Depot	155,945 SF or 3.58 acres	
Retail	51,836 SF or 1.19 acres	
	% of Total Area	Size (SF)
Only Site 1		
Open Space	25%	52,582
Building Footprint*	65%	135,416
Uncovered Surface Parking	5%	10,200
F Street (extension)	5%	9,583
Building Composition		
Mixed Use Building/Transcenter	100%	564,248
Ground Floor	—	—
Retail	3%	15,000
Bus Depot	21%	120,416
Second Floor***	—	—
Office	5%	27,000
Parking	21%	120,461
Third Floor***	—	—
Office	3%	18,000
Parking	21%	120,461
Fourth Floor (office)	14%	78,000
Fifth Floor (office)	12%	68,000

*Including sidewalks and setbacks.
 **Area assumptions includes driveway space for parking and building common areas but excludes sidewalks and setbacks.
 ***Area assumptions include the following first story setbacks:
 First floor: 100% of site buildable area
 Second floor: 95% of site buildable area
 Third floor: 90% of site buildable area
 Fourth floor: 85% of site buildable area
 ****The number of condo units accounts for 15% non-sellable residential common areas.

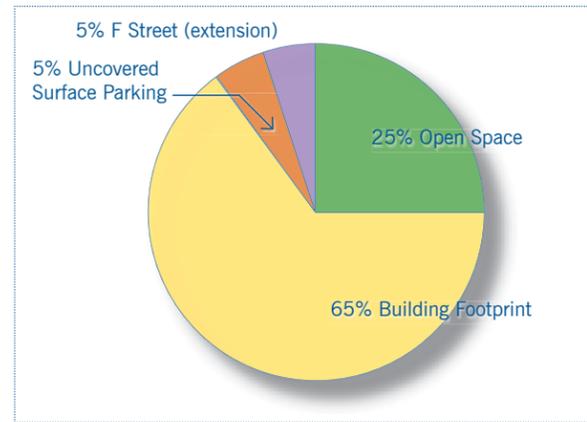


Chart 9: Scenario Three Land Use Mix

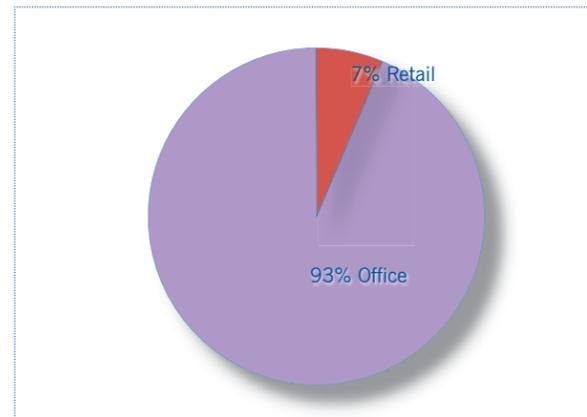


Chart 10: Scenario Three Building Composition

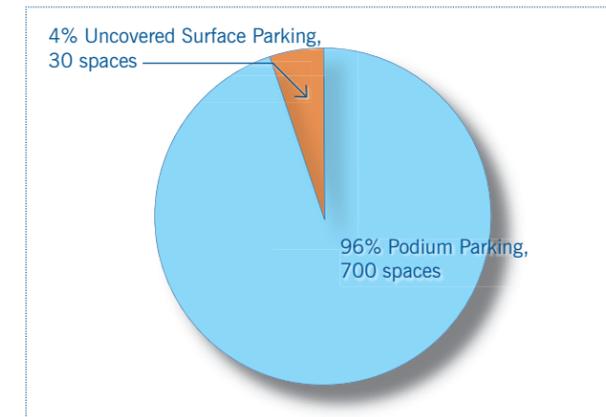


Chart 11: Scenario Three Parking Composition



Table 4: Feasibility Gap Summary

	Land Cost		Residual Land Value		Financial Gap		
	\$/SF	Total	\$/SF	Total Residual Value	Expected Financial Gap	Strong Market	Weak Market
Scenario One	\$10	\$ 4,031,190	(\$23)	\$ (9,328,361)	\$ (13,359,551)	\$ (11,355,618)	\$ (15,363,483)
Scenario Two	\$10	\$ 4,031,190	\$6	\$ 2,493,021	\$ (1,538,169)	\$ 92,999	\$ (2,983,339)
Scenario Three	\$0	\$0	\$(147)	\$ (22,964,219)	\$ (22,964,219)	\$ (22,208,130)	\$ (23,720,307)

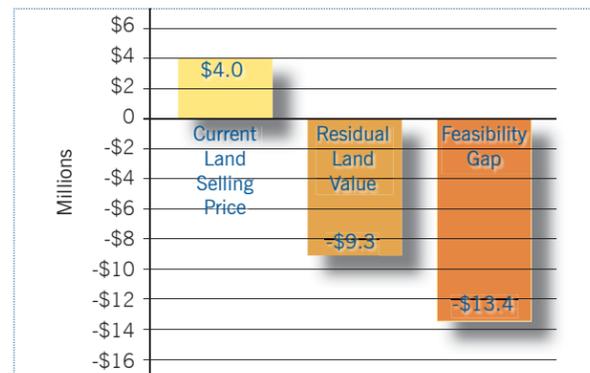


Chart 12: Scenario One Feasibility Gap

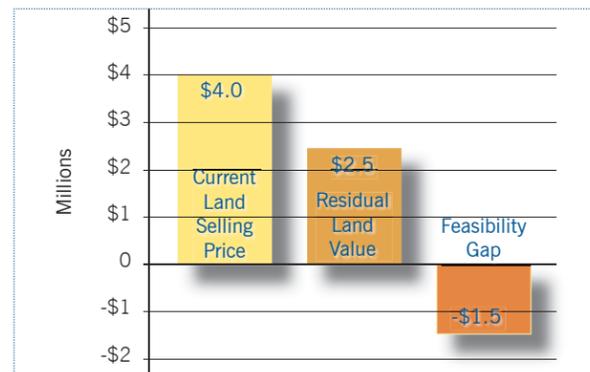


Chart 13: Scenario Two Feasibility Gap



Chart 14: Scenario Three Feasibility Gap

Summary Findings: Scenario One

The feasibility gap (shown in Table 4 and Charts 12–14) represents the difference between the land’s current market selling price (as determined by the acquisition costs in the Omnitrans 2006 Transcenter Report) and the residual land value as determined in the pro-forma analysis. The estimated financial gap for mixed-use development under Scenario One conditions is approximately \$13.4 million or 19% of total project costs—a significant barrier to redevelopment.

The negative \$9.3 million residual land value indicates that a developer would actually have to be paid to develop the site. Since either a developer or the City would have to purchase the property, the \$4.0 million land acquisition costs would be added to the negative \$9.3 million residual land value to result in a gap of \$13.4 million. Under strong real estate conditions the gap could reduce to \$11.4 million or grow to \$15.4 million in weak market conditions.

In short, it will be difficult to redevelop the E Street station site without an RDA subsidy under Scenario One. Low selling prices (\$190,000 and \$260,000 for one and two bedroom condos) and low retail lease rates relative to high construction costs for parking and residential space are responsible for the sizable gap.

Scenario One is a high density, parking intensive—and subsequently costly—development program. Although it was not modeled, previous work has shown that policies aimed at relaxing parking requirements plays an integral role in creating financial feasibility for mixed-use projects. Reduced parking requirements would act to shrink the gap significantly, especially in a project that demands such extensive below-grade parking.

Summary Findings: Scenario Two

In contrast to the Scenario One, development conditions under Scenario Two prove to be more economically feasible, returning a gap of only \$1.5 million. Again, this represents the amount by which RDA would have to subsidize the project; however, this is much more digestible compared to \$13.4 million—and one the RDA could likely support financially.

Under Scenario Two, the analysis returns a residual land value of \$2.5 million. Meaning that, unlike Scenario One—with a negative residual value (the developer would actually need to be paid to acquire the land)—a developer in Scenario Two is willing to pay \$2.5 million for the land or \$6 per square foot.

The market price of land at the E Street project site was determined to be \$4 million or \$10 per square foot. The \$1.5 million gap is derived by subtracting the \$2.5 million residual land value from the \$4 million land cost. This gap could range from as low as \$98,000 under strong market conditions to almost \$3 million in weak real estate market conditions. A sensitivity analysis showed the average residential unit sale prices modeled (\$190,000 and \$260,000 for one- and two-bedroom units, respectively) would only have to increase modestly by \$10,000 to reduce the gap to zero.

Omnitrans or the City, who purchased the land for \$10/sf, could sell to a would-be developer for \$6 per square foot and thereby “write down” the project costs to make it financially feasible to a developer. Further, since the gap value is inclusive of the 63,000 square feet of land not considered developable in the project, this area could be sold, even at a loss, to recoup a portion of land acquisition costs.

In sum, Scenario Two represents a much more viable project from a developer’s perspective—even with 150 fewer units. However, it



will still require some RDA assistance. The development conditions in the second scenario effectively replace costly below-grade parking with above-grade parking structures, yet still provide a healthy amount of open space in the form of courtyards and walking promenades. In addition, retail space is reduced to 31,000 square feet on site 2 to allow greater revenue producing potential from residential space and reduce parking requirements.

Considering the results, it appears the site cannot support large amounts of retail space (e.g., the 47,000 square feet in Scenario One). Rather, more modest amounts such as 31,000 square feet on site 2, are more feasible. Greater amounts of residential units would add value to the project, but only if the development avoids the addition of underground parking.

Summary Findings: Scenario Three

Scenario Three development conditions indicate that office and parking development above the proposed Omnitrans Bus Depot is not financially feasible—even if the developer does not have to pay for the land or any associated “air rights” to build above the depot. The analysis returns a feasibility gap of approximately \$23 million.

Accordingly, if the Scenario Three development assumptions are combined with those of Scenario Two, the gap would grow by \$1.5 million to total \$24.5 million. If combined with Scenario One, the gap would grow by \$13.4 million to total \$36.4 million.

This sizable gap is the result of several factors. First, the ground floor of the Bus Depot itself would require additional infrastructure enhancement costs to allow four extra levels of development (two levels of parking and two levels of office space). The Omnitrans report indicates that the proposed Transcenter development would cost \$7.16 million. The additional construction requirements could be

reasonably assumed to, at minimum, double the costs of the Transcenter. Moreover, we assume the developer, not Omnitrans, would incur the additional \$7 million in costs.

Secondly, the fourth and fifth floors of office space above structured parking would require costly Type I steel construction. The per square foot cost of Type I construction is estimated to be \$135 per square foot as compared to the typical \$90 per square foot costs for Type IV office construction. The costs of structured parking were assumed to be the same as in the other two scenarios (\$17,000 per space). The office construction costs are estimated to be \$25.8 million while the parking costs are estimated to be \$12 million.

These significant costs are not offset by the revenue generating potential of the 191,000 square feet of office space. In most mixed-use projects developers rely heavily on the revenue potential of residential space to make projects pencil rather than the lower income potential of retail or office space. Scenario Three relies only on leasable office space to generate income. It is assumed that condominiums and apartments would not sell or rent above a bus depot—although this could change if student housing was considered. The revenue potential of the office space is estimated to be \$37.3 million.

This revenue is generated using a lease rate of \$1.50 per square foot per month (sf/mo) for office space. To generate a “break-even” return (i.e., a feasibility gap of \$0), the lease rate would have to increase to \$2.64/sf/mo. In comparison, the fourth quarter 2006 average lease rate for office space in Orange County was \$2.20/sf/mo for Class B space and \$2.94/sf/mo for Class A space (source: Grubb & Ellis, 2007). The demand for office space in downtown San Bernardino will have to increase substantially to justify rates that will make office development feasible.

Many other costs that are not mentioned here, such as debt financing, keep Scenario Three in the red. In sum, Scenario Three represents a financially infeasible project, and would hinder rather than enhance the development feasibility of either Scenario One or Two.

Methodology

Development, especially infill development, is ultimately feasible only when projects are able to attract investors to finance project costs. Investors and lending agencies alike will only be motivated to provide funding if a developer can show at least an industry-expected return on borrowed money. It is in this context that this economic feasibility analysis was approached for the two sites identified in the City of San Bernardino.

The methodology utilizes economic pro-forma analysis to test whether development scenarios are financially feasible. Using the pro formas created through extensive conversations with local area developers and research with the Urban Land Institute, the analysis models developer costs, revenues, and expected returns in the local real estate market.

The report estimates the financial gap using a residual land value analysis and assumes a 12% profit, given the project's market driven revenues and fixed costs. The rate of 12% represents the industry expected returns for such development projects. The residual land value analysis is the preferred method for determining development feasibility in a situation lacking both a current project proposal and a new property owner intent on developing the land.

The residual land value represents what a developer is willing to pay for the land relative to project costs, revenues, and the 12% expected profit. A gap, therefore, represents the difference between what the developer is willing to pay for

the land and what the land would sell for on the open market.

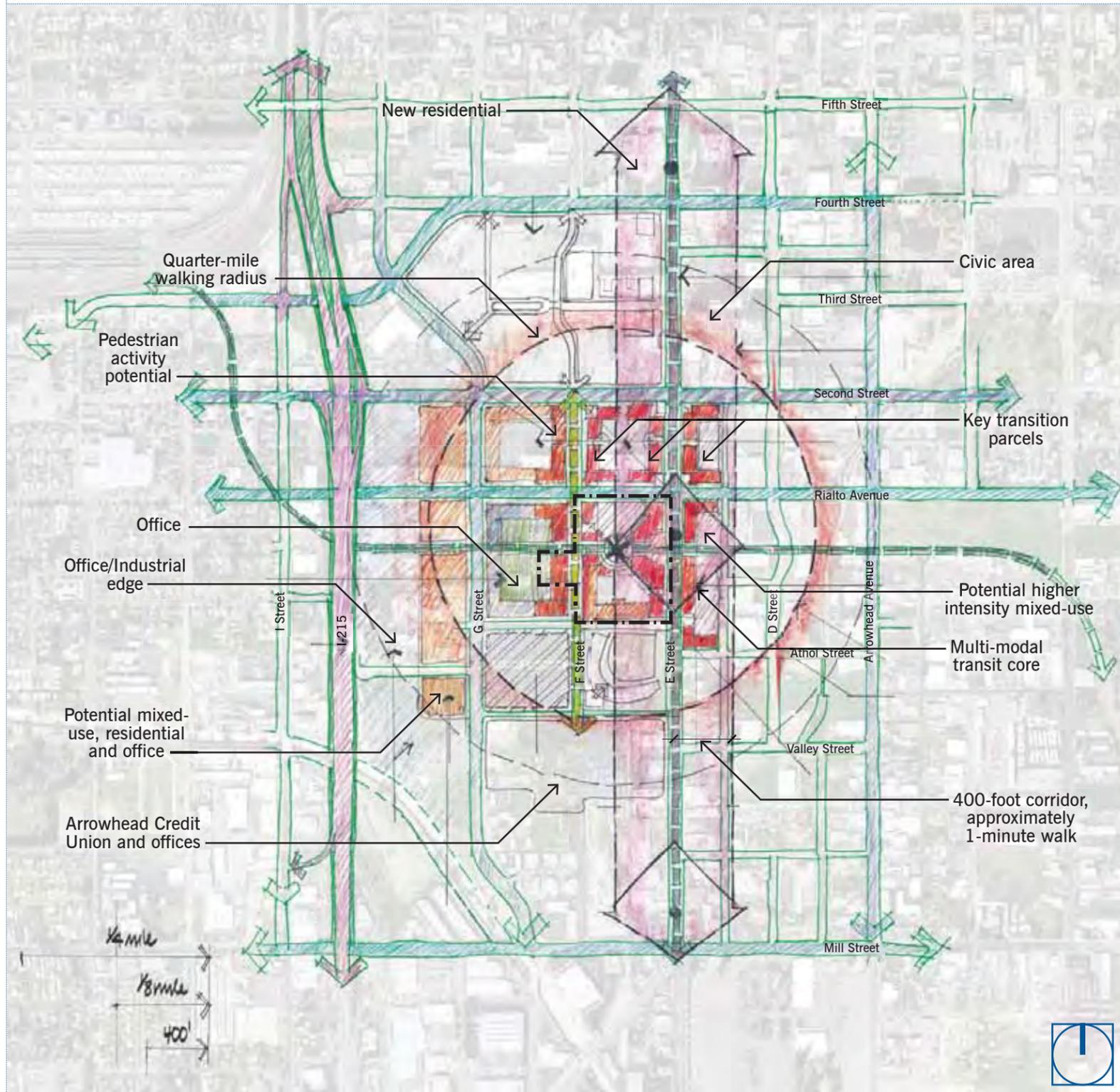
The analysis presents a range of values to capture the inherent uncertainty in market conditions, as it is difficult to predict selling prices, lease rates and absorption rates of residential and retail space in a project to be built at some uncertain time in the future. Previous work has shown that uncertainties in real estate price and development costs result in financial gaps that typically range to be 5% of total project costs. Thus, the analysis presents an estimated financial gap along with a range in gap values (low and high) to reflect strong and weak market conditions.

Some of the most important inputs and assumptions are indicated below:

- Land Costs: \$10 per square foot (\$4 million total for E Street Station site)
- Residential Construction Costs: Condo Units at \$115 per square foot
- Commercial Construction Costs: Retail at \$85 per square foot
- Parking Construction Costs :
 - Below Grade Parking: \$27,000 per space
 - Above Grade Podium Parking: \$17,000 per space
 - Uncovered Surface: \$2,500 per space
- Current Parking Requirements :
 - 2 spaces / 2 bedroom unit
 - 1.5 spaces / 1 bedroom unit
 - 1 guest space / 5 units
 - 1 space / 250 square feet retail space
- Financing Costs : Equity Investor / Lending Agency - 25% / 75%
- Unit Sizes:
 - 1 Bedroom Unit: 700 square feet
 - 2 Bedroom Unit: 1,100 square feet
 - Condo space accounts for 20% non-sellable common areas
- Residential Unit Selling Prices:
 - 1 Bedroom Unit: \$275 per square foot
 - 2 Bedroom Unit: \$235 per square foot
- Commercial and Office Retail Value:
 - Lease Rate: \$1.50 per square foot
 - Vacancy Rate: 7.0%
 - Cap Rate: 6.5%



Land Use Concept



Design Concepts

The development of the E Street Station presents opportunities for high intensity and mixed-use development in the surrounding influence areas, creating a Transit Village and revitalizing the downtown. The following points summarize land use recommendations for the E Street Station.

E Street Station

Maximize Mixed-Use Development

As depicted in the Omnitrans 2006 Report, the E Street Station would include up to 28 bus bays and approximately 15,000 square feet of retail, along with extensive surface parking, turnarounds, and a maintenance yard. Instead, the E Street Station should be designed and constructed to maximize its mixed use development potential.

The RDA and Omnitrans should provide financial assistance to the most financially feasible development alternative that introduces a significant amount of residential atop a limited amount of commercial development.

Achieve a High Quality of Design

The E Street Station will be among the first high-profile developments in the downtown, and will establish the benchmark for the quality of development expected by the public and private sectors. For downtown to thrive, the E Street Station must be something special and become a community asset.

Bus stations are often seen as dirty, unsafe areas. The E Street Station needs to overcome this stereotype and provide an attractive, park-like setting that is seen as a central hub of activity. This activity, along with the residential development, will enhance the Station's feeling of security.

Relocate Maintenance Area

The maintenance area as currently planned poses a barrier to the site's potential for joint use, and should be moved offsite. A prime location for the maintenance yard may be close by, using a portion of the underutilized Arrowhead Credit Union Ballpark parking area.

Minimize and Relocate Bus Bays

Through both innovation in design and schedule coordination (e.g., offsetting bus layover schedules and synchronizing headways), the E Street Station should be able to function with fewer bus bays, thereby increasing the potential to develop revenue generating uses. Placing bus stops along Rialto Avenue would provide approximately four bus stop locations that could still be viewed as part of the Transcenter.

The Ballpark parking area mentioned above could also be used by Omnitrans buses during layover periods and shift changes, thereby further minimizing the number of bus bays needed at the E Street Station.

Create Pedestrian Connections

Creating pedestrian linkages and pedestrian-friendly paths from the Transcenter radiating through the downtown would connect the Transcenter to the Civic Center and the rest of the downtown. An important pedestrian linkage would be from the Transcenter to the Carousel Mall redevelopment site and to the Arrowhead Ballpark.

A pedestrian underpass for E Street Station will be key in making the site accessible, allowing people to pass quickly and easily under the tracks without the need for a large pedestrian bridge situated twenty feet above the tracks. It will also help pedestrians traveling from the north or east to access the open space area and other uses south of the Station such as the Ballpark. The pedestrian underpass may also serve as a location for small commercial businesses serving the station.



E Street Corridor

Intensify Uses Along E Street

With future sbX service and the Transcenter development, E Street will clearly evolve into the central spine of the downtown and should be intensified to attract and maintain a variety of land uses. E Street represents the downtown's best corridor for mixed-use residential, along with a mix of restaurant and small retail and office establishments.

Encouraging a mix of residential and commercial uses along E Street will ensure activity during all hours of the day, creating a sense of vibrancy and increasing safety. Restaurant tenants are particularly desired for businesses during the daytime hours and dining opportunities for residents and visitors at night.

Other commercial uses that benefit both the residents, businesses, and transit riders should be encouraged along E Street. Uses such as coffee and juice shops should be located close to the transit stops, while uses such as banks and offices can be intermingled with ground floor residential.

Enhance the Streetscape

Of paramount importance to the success of the E Street Corridor is the design of the streetscape. E Street should be improved to act as a pedestrian-scaled urban street that can also carry auto and bus traffic.

For example, sidewalks should be wide enough to allow encroachments by outdoor dining and landscaping that buffers the pedestrians from the vehicular traffic. Consistent with the urban feel, buildings and main entrances should be brought up to the sidewalks, though variations in setbacks are encouraged.

Lighting should create a safe environment while also serving as an aesthetic enhancement to the buildings. Bus stops should be highly visible areas integrated into the surrounding buildings.

Arrowhead Credit Union Campus

Move Closer to Downtown and Ballpark

Located slightly over a quarter of a mile south of the E Street Station, the office development is within walking distance but should be situated closer to the E Street Station to serve as a more active part of downtown. The Campus should take advantage of its proximity to the Ballpark and place the office buildings as close to the field as possible.

This design is not only more visually stimulating, it would encourage the use of shared parking between the Ballpark and Campus and place Credit Union employees much closer to future transit, restaurant, and other office development in the downtown. At a minimum, pedestrian connections should be established between the Arrowhead Campus, the Ballpark, and the proposed E Street Station.

215 Freeway

Transition from Office to Mixed Use

The 215 Freeway provides excellent exposure for uses such as office and commercial. Industrial uses can also benefit from close proximity to a major freeway. The underutilized and vacant parcels adjacent to the 215 and west of the G Street corridor are appropriate for office or commercial uses. The southwestern area may also be appropriate for industrial uses.

The G Street corridor falls within the core area of the downtown and could benefit from a mix of residential, commercial, and office uses. If demand is high enough, G Street could serve as another key location for restaurants or other entertainment uses.

Focal Points and Key Parcels

Identify Critical Parcels

In the context of the proposed, current, and completed projects in downtown San Bernardino, specific parcels may function as focal points or lynchpin developments. The City

should focus their attention on these parcels to strengthen the downtown area.

Some of the major developments coming to the downtown are shown in the figure to the right, overlaid by quarter-mile walking radii. The areas of overlap indicate properties that have potential to generate and attract a significant amount of activity.

For example, perhaps the most critical parcels in the downtown are the parcels located immediately adjacent to the E Street Station and Carousel Mall redevelopment project. These parcels also front Second Street, a key gateway into the downtown. An intense development of these parcels will help to generate the critical mass needed to energize downtown and create centers of activity.

The demand for such an intense use, however, may not be for another five or ten years. Despite the delay, it would be better for the City to acquire these parcels rather than allow them to develop in a manner that, while immediately feasible, fails to generate sufficient activity. Furthermore, if the City acquires them at today's cost, future development could be made more feasible, as it would not have to pay the full market price for the land.

Establish Gateways and Corner Anchors

With the exception of freeway signage and a greater intensity of land uses, little exists to indicate that one has entered the downtown area of San Bernardino. The key entrance points should be enhanced to impart a sense of arrival for travelers and residents.

Gateways may consist of monument signs, banners, signage, and additional landscaping to form a sense of arrival. Additionally, the creation of anchor uses on key corners can act as a gateway that also attracts activity. Opportunities for gateways and corner anchor locations exist at the following intersections:

- Second Street and G Street
- Fourth Street and G Street
- Fourth Street and E Street
- Athol Street and E Street
- Second Street and D Street
- E Street at the southern end of the Arrowhead Credit Union Campus
- E Street Station
- Second Street entrance and exit on I-215

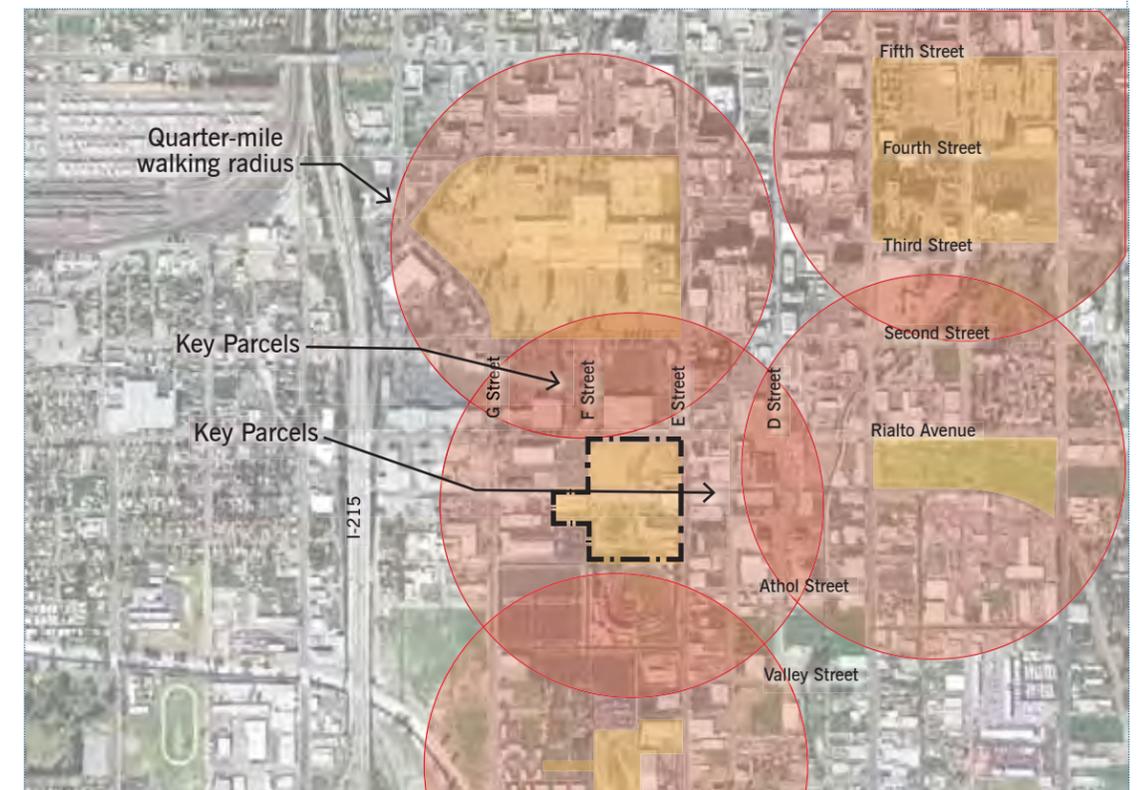
Current projects include façade improvements for the Marshall's shopping center at Second Street and G Street. By improving the Marshall's shopping center, the City has the opportunity to establish another commercial node at this location.

Enhance Key Pedestrian Intersections

Throughout the downtown, there are a number of intersections that sit between key land uses. These intersections should be designed with special paving, landscaping, signal crossings,

and corner design to attract pedestrian activity and facilitate pedestrian crossings. These key intersections are listed below:

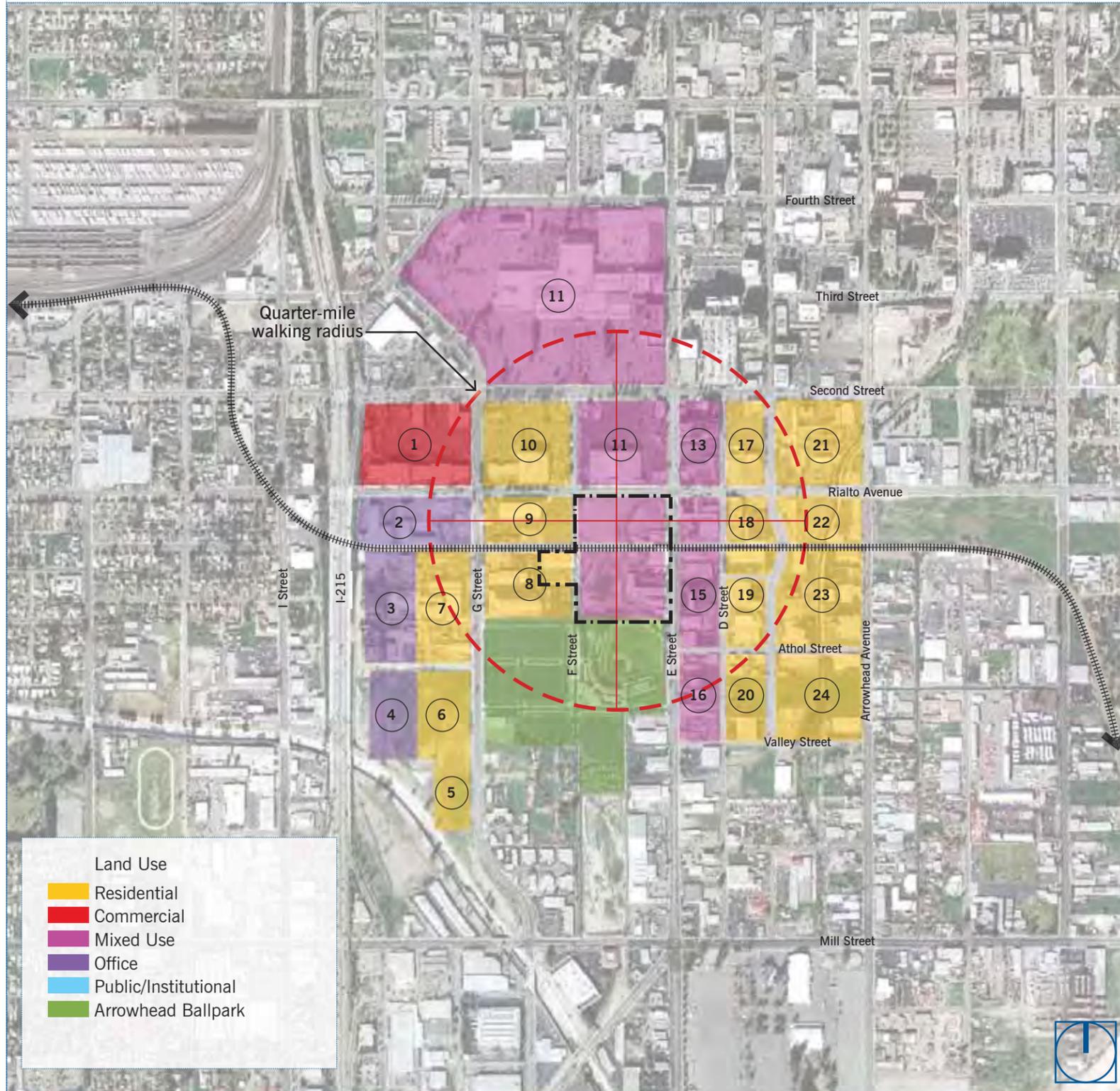
- Second Street and G Street, F Street, E Street, D Street, and Arrowhead Avenue
- Rialto Avenue and F Street and E Street
- The northwest and southwest intersections of the future F Street and the Arrowhead Ballpark



Focal Points and Key Parcels



Carrying Capacity Analysis



Carrying Capacity Analysis

Expanding upon the land use concept, a carrying capacity analysis was performed to estimate the development potential of the downtown area surrounding the E Street Station. This analysis is hypothetical in nature and most likely represents the outer limits of what could be developed in the downtown over the next 20 years. The capacity analysis indicates that approximately 3,700 residential units, nearly half a million square feet of commercial space, and almost 1.5 million square feet of office space could be added to the downtown if the land use concept was fully realized.

Carrying Capacity Statistics

Block	Area (acres)	Residential at 30 units/acre (units)	Commercial at 0.25 FAR (SF)	Office at 2.0 FAR (SF)
1	9.59	288	104,400	
2	5.13			446,600
3	6.90			592,800
4	5.23			456,000
5	4.13	124		
6	4.98	149		
7	6.27	188		
8	5.86	176		
9	3.86	116		
10	7.46	224		
11	43.0	750	120,000	
12	7.46		81,200	
13	3.99	120	43,500	
14	2.07	62	22,500	
15	4.48	134	48,750	
16	4.13	124	45,000	
17	3.99	120		
18	3.73	112		
19	1.72	52		
20	3.33	100		
21	7.99	240		
22	3.79	114		
23	8.95	269		
24	8.29	248		
Total		3,708	465,350	1,495,400



Roadway Hierarchy

The intensification of development around the E Street Station will have new traffic implications, which requires a comprehensive evaluation of all types of circulation needs. The combination of the Caltrans Park & Ride, Metrolink station, bus routes and transfer points, in addition to the new development, require a roadway hierarchy that delegates roles for each roadway.

Establish Go Streets

While the emphasis of this report is on enhancing the walkability of the downtown and embracing transit, it must also be recognized that automobiles will continue to be the primary means of travel for residents and visitors in the downtown.

The City should establish “Go” Streets whose duty is to carry large volumes of traffic around the downtown and to/from the freeway. These streets should also be able to carry the regional pass-through traffic without disturbing traffic patterns within the downtown. The recommended “Go” streets are listed below:

- Fourth Street
- Mill Street
- G Street
- Arrowhead Avenue
- Portions of Second Street west of G Street and east of Arrowhead Avenue

Establish “Slow” Pedestrian Streets

Key roads within the downtown and around the E Street Station should be narrow and incorporate traffic-calming measures to optimize walkability. In particular, F Street should be extended from Rialto Avenue to the Arrowhead Credit Union Ballpark.

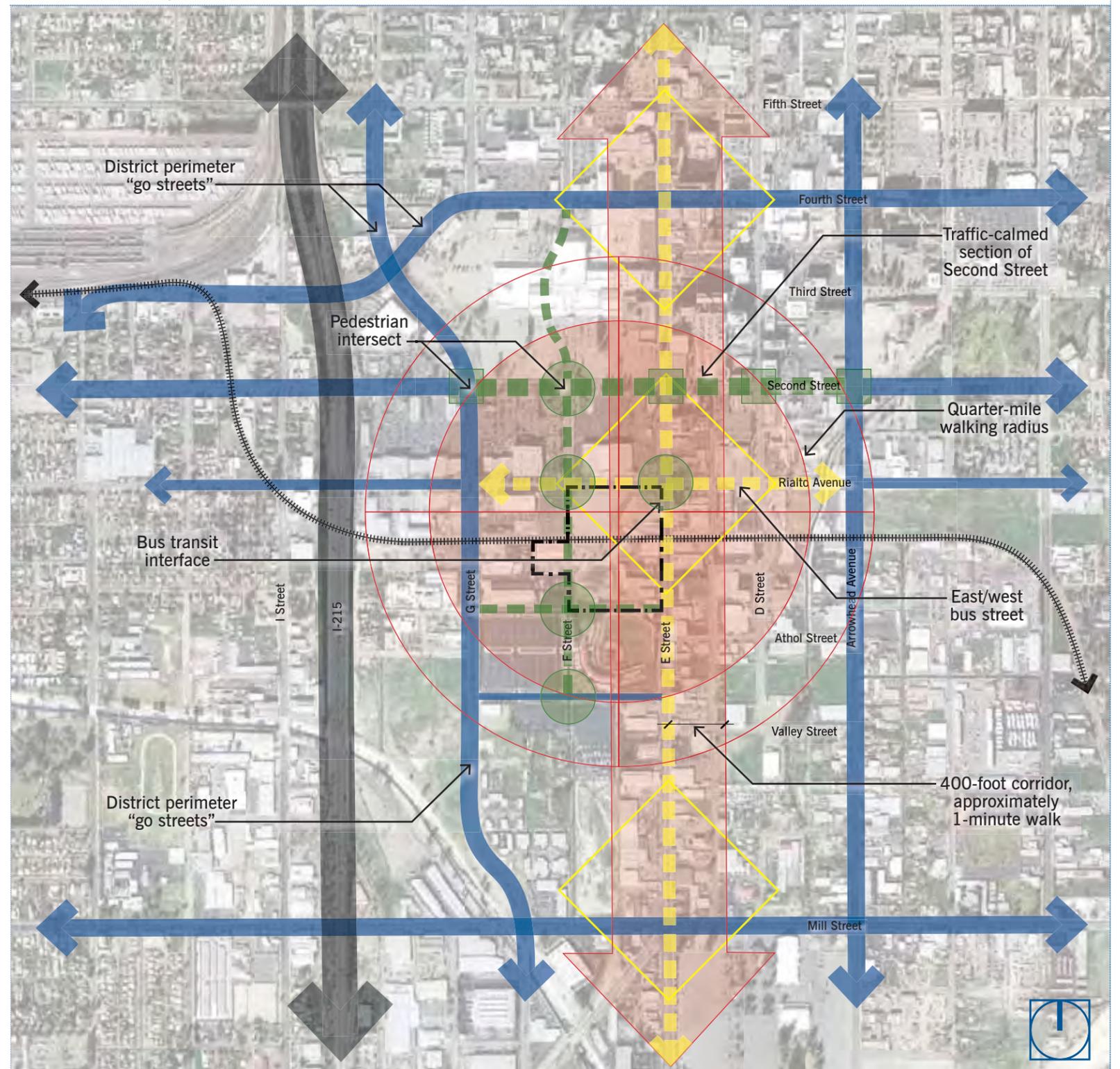
The design and feel of the roadway should complement the roadway planned as part of the Carousel Mall redevelopment to create and reinforce a consistent sense of identity within the downtown.

Establish “Bus Priority” Streets

Bus traffic will become prevalent in the downtown, particularly when the E Street Station and sbX system goes into service along E Street. These systems will

heavily travel E Street and Rialto Avenue. Accordingly, these two streets should be designed to accommodate bus, auto, and pedestrian traffic safely. Dedicated bus lanes should be introduced during key hours of the day to increase the efficiency of the bus service. Bus stops should be well signed and lit to maximize safety and encourage use.

Circulation Concept



- Circulation Key
- █ Perimeter “Go” Street
 - █ Pedestrian “Slow” Street
 - █ “Bus Priority” Street
 - Key Pedestrian Intersection





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Recommendations

Overview

In addition to the urban design, land use, circulation, and bus service recommendations, the following additional elements to the creation and support of the E Street Transit village are discussed:

Key Next Steps: An outline of critical next steps that should be taken in the next 1–2 years to ensure the success of the E Street Transit Village and downtown San Bernardino.

Transit Village District: An outline of the framework for a comprehensive zoning district that can be incorporated within the City's General Plan and Zoning Code.

Parking Guidelines: A discussion of the current approaches to address the unique needs and opportunities for the provision of parking in a Transit Village.

Development Incentives: A brief discussion of the types of incentives that have been effective in other TODs.

Industrial Adjacency Analysis: A process for consideration that evaluates the potential hazards of placing residential units in close proximity to industrial uses.

Air Quality Analysis: An update in air quality requirements/guidelines pertaining to Metrolink stations.

Financing Options: A summary of the range of options for financing improvements within a Transit Village.

Relevant Case Studies: A compendium of TOD case studies that offer further research sources for San Bernardino.

Key Next Steps

A multitude of new projects are taking place in downtown San Bernardino. If left to their own devices, however, many of these projects may miss opportunities to strengthen the downtown and reap the benefits of coordinated, transit-oriented development.

The following steps should be taken in the next 1–2 years to place the City in an advantageous position and maintain the momentum in designing, planning, and collaborating on the redevelopment of the downtown.

1. Conduct a Market Analysis

While this report includes an economic feasibility study for three development scenarios for the E Street Station, a more thorough market analysis must be performed to understand the residential, commercial, and office potential within the downtown area around the E Street Station.

This report identified a carrying capacity of 3,708 residential units, 465,350 square feet of commercial space, and 1,495,000 square feet of office space for the E Street Transit Village area. These numbers indicate an amount that could be constructed; however, it does not indicate whether the market would support such development and in what time frame.

The market analysis will analyze demand timelines and absorption rates to present a clear picture of what type of development is truly feasible in the next 5, 10, or 20 years. The market analysis should pay special attention to the key properties identified in this report, namely the two between Second Street and Rialto Avenue west of E Street that currently house the Caltrans and Food 4 Less buildings.

2. Generate Illustratives

Once a market analysis is complete, the City should complete a series of illustratives and photo-simulations that illustrate development

supported by the market study and the City's vision for downtown. A market study by itself is inadequate to instill a sense of excitement and understanding. Moreover, images of other projects, while helpful, do not appropriately convey how various development prototypes will look in the City of San Bernardino.

The City needs to help its decisionmakers, residents, businesses, and prospective developers understand the true development potential of the downtown in words and images based in the context of San Bernardino.

3. Convene Stakeholder Workshop

After distributing the market study and illustratives, the City should convene a second, more focused workshop that involves all of the public and private stakeholders—particularly those involved in projects identified on the Land Use Opportunities and Constraints map.

One of the most popular statements from the first stakeholder workshop was a call for coordination of development activities in the downtown. Armed with a better understanding of the market potential and inspired by the ideas shown in the illustratives, the second stakeholder workshop will help the City take the lead on coordinating efforts and interests in the redevelopment of the downtown.

4. Gain Control of Key Parcels

As soon as possible, the City should purchase or trade land for the two properties between Second Street and Rialto Avenue west of E Street (numbers 41 and 43). These parcels fall within the heart of the E Street Transit Village. If allowed to be developed according to traditional, low intensity prototypes, the E Street Station may lose its connection to the northern area of downtown, particularly the Carousel Mall redevelopment project. Alternatively, the City could gain regulatory control over the properties by developing a specific plan for the downtown or E Street Transit Village area.



5. Revise Current Development Projects

The current development plans for the E Street Station and Arrowhead Credit Union Campus should be revised if possible. As shown in the economic feasibility study, the E Street Station could support much more intense development than that shown in the 2006 Omnitrans Site Selection Report. The overall design of the Transcenter and related development should be enhanced to ensure the E Street Station is embraced by the public and serves as a stimulus for additional development.

The Arrowhead Credit Union Campus is located too far from the Ballpark to play an integral role in the downtown. Placement of the Campus buildings next to the Ballpark would create a much more vibrant atmosphere and expand the number of people walking to the businesses and future restaurants downtown. It would also place the buildings within a quarter-mile of the E Street Station.

6. Coordinate Capital Improvement Activities

Every fiscal year, San Bernardino expends funds to maintain and improve the city's infrastructure systems. Coordinating these improvements with the goals and strategies of redeveloping the downtown will help the City cost effectively improve the backbone systems while also enhancing development potential.

For example, sewer lines that need to be upgraded require streets to be dug up and repaired. Streetscape improvements may also require roadway and sidewalk improvements. Coordinating both of these improvements at the same time is one way the City can save time and money while also improving walkability along key streets.

Transit Village District

I. Purpose

A. To encourage a mixture of moderate to high density residential and pedestrian-friendly

commercial and office uses to promote transit ridership within walking distance of the Metrolink station.

B. To promote coordinated and cohesive site planning and design that maximizes transit-supportive development in a pedestrian-oriented design.

C. For an overlay district: to permit increased heights, densities and intensities over the base zone for projects with a residential component and to encourage housing and mixed-use projects.

D. To restrict certain uses that do not support transit ridership.

II. Applicability

A. Applies to the recommended study area in this report, at a minimum. Should contain provisions for transit supportive projects extending to the half-mile radius. Should also consider the role of future bus corridors (particularly along E Street and Rialto Avenue).

B. Describe how the zone or district appears on the official zoning map.

III. Use Regulations

A. Prohibited Uses (more important than permitted uses in a Transit Village Zone): The following are recommended prohibited uses:

1. Automotive sales, service, repair, storage, salvage, or rental
2. Gasoline sales
3. Convenience stores with gas sales
4. Drive-through establishments
5. Equipment sales or rental
6. Manufactured home sales
7. Salvage yards
8. Heavy industrial (need to define light industrial with an office component as conditional)
9. Towing services
10. RV mobile home sales or storage

11. Car wash
12. Mini-storage and self-storage facilities
13. Commercial laundries with on-site dry-cleaning
14. Warehousing and distribution facilities
15. Low density housing (less than 15 du/ac)
16. Golf course
17. Boat sales or storage
18. Freight terminal
19. Amusement park
20. Building contractor storage facility
21. Retail uses larger than 10,000 square feet, unless part of a mixed-use development
22. Commercial parking facilities
23. Nursery (selling of live plants)
24. Service station
25. Wholesale stores and distributors over 6,400 square feet
26. Sex-oriented book stores

B. Permitted and Conditional Uses: Identify the uses that create a multiuse, pedestrian-oriented environment, such as: retail uses (less than 10,000 square feet), professional offices, newsstand, coffeehouses, day care facility, florist, restaurant or café, personal and business services, medium and high density residential (with a minimum of 3 stories), and live-work units. Conditional uses should be minimized, which means the zone should be comprehensive in terms of use regulations, form, and possible design criteria.

C. Plan review requirement: Seek to streamline the plan review requirement. Establish findings related to transit-oriented development.

IV. Development Standards

- A. Density
1. Nonresidential density: A minimum Floor Area Ratio (FAR) for nonresidential development shall be established.
 2. Residential density: A minimum



number of dwelling units per net acre shall be established for residential projects (or base on form/number of stories).

B. Parking

A parking and joint use analysis shall be completed to identify minimum and maximum parking requirements for all proposed uses and joint use opportunities and requirements.

C. Pedestrian Access

Public pedestrian access through or across the development may be required in order to facilitate convenient pedestrian access to transit stops, stations, shopping, or other community facilities.

D. Building Placement

Describe minimum and maximum setbacks.

E. Building Profile

Include building height in terms of stories; encroachments into the setbacks; and range of frontage types desired in the Transit Village district.

F. Standards for the Public Realm

1. Define standards for the creation of public spaces, including the transit room, plazas and piazzas, neighborhood squares, neighborhood parks, and greenways.
2. Define standards for the creation of smaller blocks, where applicable.
3. Define street standards and streetscape design for the full range of streets in the district.

Parking Guidelines

Parking design, configuration, and management is critical to the overall success and viability of transit-oriented developments. There are several overarching factors to be considered when developing parking standards:

- Key design principles in TOD development emphasize compact and dense development, which also entails limiting large-scale surface parking.
- Mixed-use development calls for pedestrian-focused design, which requires a shift from conventional suburban parking locations.
- Marketing viability and adequate financial return for higher density or mixed-use projects may hinge on a reduction in parking requirements. Spaces in an underground structure can cost \$27,000 per space.

There is a wealth of information on parking strategies derived from case studies throughout the United States. There is general agreement on the following transit-oriented parking principals:

Parking should not dominate the landscape.

Large parking lots become a barrier to walking. Parking should be constructed so as not to impact the pedestrian realm. This includes concealing parking behind buildings, in mixed-use parking structures, or joint parking structures.

Charge for parking, where appropriate. Free parking encourages employees to continue to drive to work while fee parking encourages transit ridership.

Reduce off-street parking requirements.

When viewing parking as an employment or business/residential use, the reduction in parking could serve to decrease development cost and discourage auto use.

Protect neighborhoods. Parking spillover can have a dramatic impact on surrounding residential uses. It may be necessary to protect parking in surrounding neighborhoods by imposing such programs as residential parking

permitting or metering, exempting residents from charges.

Utilize on-street parking. On-street parking can be used to reduce off-street parking, but the design should be compact and it should not impact pedestrian walkability.

Create parking districts. Municipally managed parking districts that collect in-lieu or annual fees can be more cost-effective than bundled or per building parking.

Another consideration is Park & Ride. Although many forms of transit-oriented literature call for reduced parking requirements, the urbanizing environment of the San Bernardino Valley presents a different situation. Driving to a commuter rail or light-rail station in a suburban environment is not uncommon.¹ According to Metrolink's I-15 Corridor Rail Feasibility Study, 50 percent of I-15 and I-215 corridor travelers drive over 21 miles from home to Metrolink stations. One technique for managing the higher parking requirements is through shared parking.

Shared Parking

Shared parking is the use of parking spaces to serve two or more individual land uses without conflict or encroachment. The ability to share parking spaces is the result of two conditions: (1) variations in the accumulation of vehicles by hour, by day, or by season at the individual land uses, and (2) relationships among the land uses that result in visits to multiple land uses on the same auto trip.² Land uses that use joint parking include offices, restaurants, retail, colleges, churches, cinemas, and special events.³

The application of joint parking can promote dense and compact development while supporting a pedestrian-friendly environment.

¹Hank Kittmar and Gloria Ohland, *The New Transit Town: Best Practices in Transit-Oriented Development* (Washington, DC: Island Press), 2004.

²Mary S. Smith, *Shared Parking*, 2nd ed. (Washington, DC: Urban Land Institute), 2005.

³Metropolitan Service District, "Shared Parking in the Portland Metropolitan Area" (Portland, OR).

⁴Ibid.



As seen in Portland, Oregon, joint parking can reduce the parking demand by 0.5 spaces per 1,000 square feet of gross leasable area built. This can produce a savings of one-acre of parking for 249,000 square feet of gross leasable area. Some benefits of joint parking include:

- Reducing parking pressure on neighboring streets;
- Demonstrating that cooperation will occur when the need arises;
- Construction of fewer parking spaces;
- Denser development with more open space opportunities;
- Decreasing non-permeable surfaces; and
- Improving the neighborhood business climate and community support for those businesses.⁴

The North Montclair Specific Plan: 2% Growth Vision Parking Analysis provides a good example of parking demand and shared parking recommendations. For more extensive explanation of shared parking, land use requirements, and base parking adjustment ratios, see *Shared Parking* by Mary S. Smith (2nd ed., 2005).

Development Incentives

Development within a Transit Village is inherently complex. Effective projects need to determine the market demand for the appropriate uses and coordinate the placement of those uses within the overall Transit Village plan—while enhancing transit accessibility. In addition, arranging financing can be difficult because the return on mixed-use design is not easy to calculate. The level of complexities may hide barriers and uncertainties that trip up a project long before construction even begins.

A number of tools or incentives have been used to enhance the development potential of transit village areas and simplify some of the processes. These tools include density bonuses (such as for a mixed-use project), land assembly, relaxed

or creative parking standards, and streamlined review. The two most widely applied incentives are planning funding and supportive zoning.

Planning funding is the most common incentive because an effective Transit Village cannot be created without comprehensive planning. The level of planning involved is correspondingly complex, but most local governments cannot afford to sponsor this kind of transit planning, and they call on support from regional, state, and federal agencies and transit authorities. See *Financing Options for Transit Villages*.

The second most commonly applied incentive—and the factor with the greatest influence on transit village development—involves zoning. Most zoning calls for single uses and it usually doesn't support the density and intensity levels associated with transit-oriented development. To permit the necessary mixed-use requirements and high density levels, local governments must develop and establish proper zoning standards.

According to developers, the most effective ways to encourage development are through upgrades in transit services, streetscape improvements, reduced turnaround time during the entitlement process, and most importantly, transit-supportive zoning. Local governments that want to enhance development potential need to implement a development process that removes uncertainty in the design and approval process.

Some jurisdictions have instituted “by right” uses in transit zones, supplemented with well-defined development regulations (such as form-based zoning). At a minimum, transit zones should be comprehensive enough to minimize (or eliminate) the need for special use reviews such as conditional use permits (CUP).

Some cities may be reluctant to forgo the review process because of their responsibility to ensure proper development that promotes public health and safety. An effective method of overcoming this difficulty is through a specific

plan. If properly prepared, a robust Transit Village Specific Plan can assemble the necessary planning guidance to minimize the subsequent entitlement process. For San Bernardino, a specific plan may be a good tool to more precisely implement the Downtown Strategic Area and Downtown Revitalization strategies.

Industrial Adjacencies Analysis

The mixed-used context of Transit Villages does not inherently present conflicting land uses or potential hazards to their residents. Nevertheless, there is a growing concern for potential hazards arising from industrial land uses near the residential components within Transit Villages. To address this issue, the City may want to consider adopting a process called an Industrial Adjacency Analysis (IAA), which evaluates the potential hazards of placing residential units in proximity to industrial uses.

The IAA was designed to identify and analyze potential hazards and recommend mitigation measures to reduce or eliminate potential threats to human health and safety. Unlike California Environmental Quality Act (CEQA) reviews, which take a single-project approach to analyzing emissions and hazards, the IAA reviews several kinds of potential hazards, single and cumulative, within a given area.

The IAA focuses on all industrial businesses within 1,000 feet of the proposed residential site that involve operations which may include significant trucking; the storage, use, or disposal of toxic and/or hazardous materials of a kind and/or quantity that require registration with any governmental agency; or other operations that involve significant lighting, noise, and/or odor.

In addition, the IAA evaluates potential adverse impacts to residents due to the presence of contaminated soil or groundwater in the vicinity of the project. Once completed, a city can make an informed decision and approve appropriate mitigation measures based on a comprehensive



data and analysis of potential health hazards. An example IAA outline format is included below:

1. Executive Summary
2. Introduction
 - A. Project Location
 - B. Project Description
 - C. Planning Background
 - D. Purpose of IAA
 - E. Project Plans and Site Context Materials
3. Inventory of Adjacent Operations
 - A. Information regarding industrial operations within 1,000 feet of site (based on definition)
 - B. Noise Levels and Sources
 - C. Hazardous Materials Sources and Use
 - D. Odors
4. Environmental Considerations
 - A. Phase I Environmental Site Assessment
 - B. Contamination Assessment
 - C. Hazardous Materials Assessment
 - D. Air Emissions
 - E. Risk Management Program Information
 - F. Health Risk Assessments
 - G. Hazardous Waste Generators
5. Potential Threats to Human Health (including sensitive receptor information)
6. Additional Characteristics
7. Summary and Conclusions, including recommendations for any distance buffering necessary to ensure land use compatibility.
8. Glossary of terms used in the IAA
9. References

Air Quality Analysis

The following Q&A has been prepared to address some of the questions that have arisen when planning for TOD development around Metrolink stations.

Do air quality impacts from Metrolink stations warrant regulatory control?

No. Passenger locomotives and stations, such as Metrolink and Amtrak, are exempt from railroad air emission control programs recently established by state and regional air quality control agencies.

Why are passenger railroads exempt from air quality control regulations?

Passenger railroads are exempt because their emissions are relatively minor compared to those from freight railroad operation. The South Coast Air Quality Management District (SCAQMD) has chosen not to regulate passenger railroads or stations such as Metrolink and Amtrak because they contribute less than 10 percent of the nitrogen oxides (NO_x) and particulate matter (PM) emissions from railroad operations in the region. Similarly, the California Air Resources Control Board (CARB) does not cover passenger railroads in its voluntary program to control railroad air emissions.

What are some key differences between freight and passenger railroad operations?

Passenger railroad operations conduct very little switching, maintenance, service and cargo-handling activities. These activities occur regularly at freight rail yards and are the source of most air emissions and associated health risks from freight railroad operations.

Do air quality impacts from freight rail yards warrant regulatory control?

Yes. Freight locomotives and rail yard operations are a significant source of smog-forming (NO_x) and toxic (diesel PM) emissions. In October 2004, CARB conducted a health risk assessment to estimate the cancer risk from diesel exhaust from operations at a major Class I freight rail yard in Roseville.

The results of this analysis, the first of its kind in California, showed significant risk around the Roseville rail yard. The Roseville study prompted SCAQMD to promulgate railroad rules targeting air emissions and health risks from 19 freight

rail yards in the region. The study also led CARB to establish a voluntary program for controlling emissions and risks from 17 major freight rail yards statewide.

What regulations and programs exist to control emissions from major freight rail yards?

In 2005, SCAQMD adopted Rule 3503—Emissions Inventory and Health Risk Assessment for Rail Yards—to mitigate health risks from 19 major freight rail yards in the South Coast Air Basin. The rule requires public notification if the risks from rail yards are above a specified threshold.

In 2006, Rule 3501 (Record Keeping for Idling at Major Freight Rail Yards) and Rule 3502 (Reduction of Idling at Major Freight Rail Yards) were adopted. All three rules are subject to ongoing litigation in federal court between SCAQMD and the major freight railroads. CARB is addressing air quality health risk from the 17 major freight rail yards in the state through a Voluntary Agreement, established in 2005 with the two long-haul railroads (UP and BNSF) that operate the yards.

The Agreement calls for health risk assessments to be performed at the 17 major freight rail yards, as well as controls on locomotive idling, use of low sulfur fuel, and so forth. In 2005, CARB published [Air Quality & Land Use Handbook: A Community Health Perspective](#), which makes recommendations for siting sensitive land uses such as residences and schools around major freight rail yards with maintenance and service activities.

The advisory recommendations from CARB are: (1) Avoid siting sensitive land uses within 1,000 feet of a major service and maintenance rail yard, and (2) within one mile of a rail yard, consider possible siting limitations and mitigation approaches.



Federal and State Funding Sources

	LAND USE					
	"Good Fit" for TODs	Transportation Facilities	Transit Facilities	Affordable Housing	Environmental Concerns	General Community Investment
Federal Funding Sources						
Brownfield Economic Development Initiative (BEDI)					✓	
Community Development Block Grant (CDBG) Program	✓					✓
Congestion Mitigation and Air Quality (CMAQ) Improvement Program			✓		✓	
Economic Development Initiative (EDI)	✓					✓
Federal Transit Act Section 5309 Grant Program – New Rail Starts			✓			
HOME Investments Partnerships Program				✓		
HOPE VI	✓			✓		
New Markets Tax Credit				✓		✓
New Markets Venture Capital Program						✓
Section 108 Loan Guarantee Program	✓			✓		✓
Short Term Planning Grants						✓
Surface Transportation Program (STP)		✓	✓			
Tax Credits – Low Income Housing				✓		
Technical Assistance Grant (TAG) Program						✓
Transportation and Community and System Preservation (TCSP) Pilot Program	✓	✓	✓			
Transportation Equity Act for the 21st Century (TEA-21)	✓	✓	✓			✓
State Funding Sources						
Bicycle Transportation Account (BTA) Program		✓				
CalHome Program				✓		
California Organized Investment Network (COIN)				✓		✓
Child Care Facilities Finance Program (CCFFP)						✓
Cleanup Loans and Environmental Assistance to Neighborhoods (CLEAN) Program					✓	
Downtown Rebound Planning Grants Program	✓					✓
Downtown Rebound Program	✓			✓		✓
Home Investment Partnerships Program (HOME)				✓		
Interregional Improvement Program		✓	✓			
Multifamily Housing Program (MHP)	✓			✓		✓
Petroleum Violation Escrow Account (PVEA)					✓	✓
Regional Improvement Program		✓	✓			
State Community Development Block Grant Program (CDBG)	✓					✓
State Transit Assistance			✓			
State Transportation Improvement Program (STIP)		✓	✓			
Urban Pre-development Loan / Jobs Housing Balance Program	✓			✓		✓

Source: California Department of Transportation, Final Report on Statewide Transit-Oriented Development, 2002

Financing Options for Improvements of Transit Villages

The coordination and planning of financing is crucial to the overall project development. There is no single source of funding for a transit-oriented development project. Instead, a successful financial plan will include an intricate assembly of funding from various federal, state, regional and local sources. Such sources may also include private financing. A summary of the major types of financing and detailed information on funding sources are included below.

Grants. Direct funding for transportation planning, implementation, and development may be available through various sources. Sources include the U.S. Department of Transportation; Environmental Protection Agency; Economic Development Administration; Housing and Urban Development (HUD); California State Treasurer; California Department of Transportation; California Department of Housing, and Community Development.

Community Development Block Grants (CDBG). CDBG grants are provided through the federal Department of Housing and Urban Development. HUD grants are provided for community development activities directed toward revitalizing neighborhoods, economic development, affordable housing opportunities, and providing improved community facilities and services.

Municipal Bonds. Municipal bonds are bonds issued by any city, county, or state. These bonds can be used to fund local projects such as highways, schools, and infrastructure improvements. Bonds offer municipalities the ability to raise project funding without increasing taxes. Interest payments on municipal bonds are normally exempt from federal, state, and local taxes.

Loans. Private loans can be made available through many private lending institutions. Some developers have identified private funding issues when attempting to prove mixed-use market performance and profitability. Banks with headquarters in large metropolitan cities that have extensive transit-oriented development, such as New York and Chicago, tend to have a better understanding of TOD financing and performance.

Tax Increment Financing. Tax increment financing is commonly seen in redevelopment areas. This redevelopment tool was created to assist cities in improving areas that are blighted or economy depressed. Tax increment financing works by reinvesting the incremental tax increases (starting from the time an area is declared to be a redevelopment zone) into the redevelopment zone. Due to property tax increase limitations, this option works best when applied before major development occurs. This will set the base property tax level at pre-development land values.

Tax Abatement. Tax abatement provides tax relief for developers to encourage new development. Tax abatement is often used for affordable housing projects, but should be used sparingly in other areas as it could be considered a form of development subsidization.

Benefits Assessment District. A Benefits Assessment District is a public/private funding partnership in which property and business owners of a defined area elect to make a collective contribution for the development, maintenance, operations and other related services for their designated district.

Development Impact Fees. Development impact fees have become commonplace among modern development. These fees allow new development projects to finance infrastructure improvements, relieving city and county municipalities of the burden. Although a lucrative method for assuring infrastructure improvements, such fees could discourage new development and are not commonplace or encouraged in transit-oriented development projects.

Funding Sources. Due to the intricacies of financing, different types of funding may be available for the various land uses and transit facilities. To demonstrate how the overall financial plan can include multiple sources, the table (left) provides possible funding sources based on the land uses.

Funding Sources

Federal and state tax credits, loans and grants are a few of the sources of funding for transit-oriented development. What follows is a variety of funding opportunities for housing, economic development and transportation projects.



I. Federal Programs

TRANSPORTATION AND SYSTEMS AND COMMUNITY PRESERVATION FUND

Funding Source:	US Department of Transportation, Federal Highway Administration
Description:	Discretionary grants to plan and implement strategies that improve the efficiency of the transportation system; reduce environmental impacts of transportation; reduce the need for costly future public infrastructure investments; ensure efficient access to jobs, services, and centers of trade; and examine private sector development patterns and investments that support these goals. A total of \$120 million was authorized for this program for FYs 1999–2003.
Eligible Users:	State agencies, metropolitan planning organizations, and units of local governments that are recognized by a state are eligible recipients of TCSP grant funds. This would include towns, cities, public transit agencies, air resources boards, and school boards. Nongovernmental organizations that have projects they wish to see funded under this program are encouraged to partner with an eligible recipient as the project sponsor.
Policies & Guidelines:	Grant proposals should address efforts to: <ul style="list-style-type: none"> • Improve the efficiency of the transportation system • Reduce the impacts of transportation on the environment • Reduce the need for costly future public infrastructure • Ensure efficient access to jobs, services and trade centers • Encourage private sector development patterns.

SAFE, ACCOUNTABLE, FLEXIBLE, EFFICIENT TRANSPORTATION EQUITY ACT (SAFETEA)

Funding Source:	U.S Department of Transportation http://www.fhwa.dot.gov/reauthorization/safetkeyinfo.htm
Description:	Encourages projects that will facilitate the planning, development, and implementation of strategies by states, metropolitan planning organizations, federally recognized tribes and local governments to integrate transportation, community, and system preservation plans and practices that improve the efficiency of the transportation system; reduce the impacts of transportation on the environment; reduce the need for costly future investments in public infrastructure; provide efficient access to jobs, services, and centers of trade; and examine development patterns and identify strategies to encourage private sector development patterns which achieve these goals.
Eligible Users:	State and local governments
Policies & Guidelines:	\$500,000 per year to each state; must also make funds available to MPOs, federally-recognized tribes, and local governments in a manner and in amounts to be determined by the state.



Federal Grant Search Databases

WEBSITE	CATEGORY	ORGANIZATION
http://fedgrants.gov	RFP autonotification service	Select by category
http://cfda.gov	Catalogue of Federal Domestic Assistance	Federal Commons Link
http://www.hhs.gov/fbc/funding.html	Faith-based & community nonprofit assistance	US Health & Human Services
http://www.foundationcenter.org	Grantor info and some free services	Fee service for funding research
http://www.rwjf.org	Health care, family, public health policy, population health science	
http://www.grantwritingusa.com/hsu.html	Homeland Security Grants	Homeland Security
http://www.hud.gov/offices/adm/grants/fundsavail.cfm	Notice of Funding Availability SuperNOFA	HUD

THE PEDESTRIAN AND CYCLIST EQUITY (PACE) SAFE ROUTES TO SCHOOL PROGRAM
(HR 2568 Act of 2003 still pending approval)

Funding Source: **US Department of Transportation (SAFETEA Fund)**
The Highway Trust Fund
<http://www.americabikes.org/SRTS.asp>

Description: Safe Routes to School Program would provide \$250 million annually from 2004 through 2009. The program would include provisions for planning, infrastructure improvement, and public awareness. Infrastructure-related projects to encourage walking and bicycling to school could include sidewalk improvements; traffic-calming and speed-reduction improvements; on-street bicycle facilities; off-street bicycle and pedestrian facilities; and secure bicycle-parking facilities. Funds can also be used for non-infrastructure-related activities including public-awareness campaigns and outreach to press and community leaders.

Eligible Users: Eligible recipients include state, local or regional agencies, including nonprofit organizations.

Policies and Guidelines: Not less than 10 percent of amounts apportioned to a state must be used for non-infrastructure-related activities. A report conducted by a task force composed of leaders in health, transportation, education, and representatives of appropriate federal agencies will examine strategies for advancing the safe routes to school programs nationwide, and will be submitted to Congress no later than March 31, 2006.

BROWNFIELDS GRANTS

Funding Source: **Environmental Protection Agency (EPA) Region 9**
<http://yosemite.epa.gov/r9/fsfc.nsf/58cc78776e5e186b8825641b006a9bd8/ccd09a108ad0583b8825641f000f478c?OpenDocument>

Description: Up to \$400,000 per grant for assessment. Up to \$700,000 with waiver. To provide funding for communities and other stakeholders in economic redevelopment to work together to prevent, assess, safely cleanup, and sustainably reuse Brownfields. Encourages community groups, investors, lenders, and developers to develop creative solutions to assess and clean up contaminated sites and return them to productive use.

Eligible Users: States, cities, towns, counties, U.S. Territories, and Tribes are eligible to apply.

Policies & Guidelines: Some grants require a match; others do not. Up to \$1 million available for revolving loan fund grants and up to \$200,000 available for cleanup grants. These two grants require a 20 percent match. Other grants available to start brownfields job training programs. See 2003 Brownfields Guidance for more information about applying.



ECONOMIC DEVELOPMENT TECHNICAL ASSISTANCE GRANTS

- Funding Source:** **Economic Development Administration (EDA)**
<http://www.eda.gov/AboutEDA/Programs.xml>
- Description:** Provides grants and cooperative agreements for technical assistance projects to create and retain jobs and promote economic growth. Activities funded under the program include business start-ups, expansion, retention, job training; infrastructure and downtown revitalization. There is a total of \$10,920,000 available, with an average grant amount of \$25,000.
- Eligible Users:** The economic development program is open to rural counties, cities with more than 50,000 population, cities with less than 50,000 population, counties, nonprofit corporations, and Tribes.
- Policies & Guidelines:** Proposals are judged on basis of proposed work program and qualifications of applicant; how the project strengthens local organizations and institutions; benefits distressed areas; diversifies distressed economies; has innovative approach. Applications are continuously accepted.

ECONOMIC DEVELOPMENT ADMINISTRATION – SHORT TERM

- Funding Source:** **Economic Development Administration (EDA)**
http://12.46.245.173/pls/portal30/CATALOG.PROGRAMTEXTTRPT.SHOW?p_arg_names=prog_nbr&p_arg_values=11.302
- Description:** Short-term planning grants provide support for significant new economic development planning, policy-making, and implementation efforts, and establish comprehensive economic development planning processes cooperatively with the state, the state political subdivisions, and economic development districts.
- Eligible Users:** State and local governments; regional economic development districts; public and private nonprofit organizations.
- Policies & Guidelines:** Eligible activities include: preparation and maintenance of a continuous comprehensive economic development and planning process; coordination of multijurisdictional planning efforts; diversification of the local economic base and implementation of programs, projects and procedures designed to create and retain permanent jobs and increase incomes.

SUPERNOFA ECONOMIC DEVELOPMENT AND EMPOWERMENT PROGRAM

- Funding Source:** **HUD – (BEDI) Brownfields Economic Development Project**
<http://www.hud.gov/offices/cpd/economicdevelopment/programs/bedi/index.cfm>
- Description:** This SuperNOFA is designed to make it easier to find and apply for funding under a wide variety of HUD programs. The SuperNOFA provides a “menu” of HUD funding opportunities.
- Eligible Users:** Each of the programs included in the SuperNOFA has different statutory and congressionally mandated requirements for determining which organizations are eligible to apply for funding. You must read the Eligible Applicants section for the specific programs in the SuperNOFA to determine eligibility for program funds.
- Although HUD is strictly prohibited from awarding funding to ineligible applicants, they strongly encourage ineligible groups with expertise to partner with an eligible entity that would be eligible to apply.
- Policies & Guidelines:** The applicant must submit a completed application to HUD on or before the respective program’s application due date.



II. California State Programs

CALIFORNIA POLLUTION CONTROL FINANCING AUTHORITY

- Funding Source: **(CPCFA) Sustainable Communities Grant and Loan Program**
www.treasurer.ca.gov/CPCFA/
- Description: A State Treasurer's Office-sponsored communities grant and loan program that provides maximum assistance of up to \$500,000 per applicant, which includes \$350,000 in grant funding and up to \$150,000 in loan assistance for programs and projects that reduce pollution hazards and degradation of the environment, assist in the revitalization of one or more neighborhoods that suffer from high unemployment levels, low-income levels and/or high poverty, and/or promote infill development.
- Eligible Users: All applicants are required to be one or more California cities, counties, or city and county (the applicant could partner with a public entity including but not limited to, a redevelopment agency or joint powers authority).
- Policies & Guidelines: One application per funding round for program funds. Project proposals must identify that the project will assist in the reduction of pollution hazards within the existing neighborhoods and/or assist one or more neighborhoods that are economically distressed and/or promote infill development.

CALIFORNIA TAX CREDIT ALLOCATION COMMITTEE (TCAC)

- Funding Source: **CA State Treasurer**
<http://www.treasurer.ca.gov/ctcac>
Telephone: (916) 654-6340
- Description: Two low-income housing tax credit programs—a federal and a state program—authorized to encourage private investment in rental housing for low-income families and individuals. The state program does not stand alone but supplements the federal tax credit program.
- Eligible Users: Developers and sponsors of affordable rental housing, either new construction or for the acquisition and rehabilitation of certain projects, are eligible for tax credits in both federal and state programs.
- Policies & Guidelines: Rent and income restrictions on proposed units apply. Determination of credit need assessed by the TCAC on a project-to-project basis.

STATE TRANSPORTATION IMPROVEMENT PROGRAM (STIP)

- Funding Source: **CA State Highway Account**
<http://www.dot.ca.gov/hq/transprog/stip.htm>
- Description: The STIP is a multiyear capital improvement program of transportation projects on and off the state highway system, funded with revenues from the State Highway Account and other funding sources. STIP programming generally occurs every two years.
- Eligible Users: STIP funds only construction projects. Mostly new highways and transit, but more recently, bicycle and pedestrian projects, road repair, and street maintenance are now eligible.
- Policies & Guidelines: Policies and guidelines for STIP funds vary according to the project submitted.



BICYCLE TRANSPORTATION ACCOUNT PROGRAM (BTA)

- Funding Source: **California Department of Transportation**
<http://www.dot.ca.gov/hq/LocalPrograms/bta/btaweb%20page.htm>
- Description: The BTA funds city and county projects that improve safety and convenience for bicycle commuters.
- Eligible Users: To be eligible for BTA funds, cities and counties must have a Bicycle Transportation Plan (BTP) that discusses certain required items.
- Policies & Guidelines: See website.

CAL HOME PROGRAM

- Funding Source: **California Department of Housing and Community Development (HCD)**
<http://www.hcd.ca.gov/ca/calhome/>
- Description: Funds low- and very-low-income households to become or remain homeowners. Grants to local public agencies and nonprofit developers to assist individual households through deferred-payment loans. Direct, forgivable loans to assist development projects involving multiple ownership units, including single-family subdivisions.
- Eligible Users: Local public agencies; nonprofit corporations.
- Policies & Guidelines: Eligible activities include pre-development, site development, and site acquisition for development projects; rehabilitation, and acquisition and rehabilitation, of site-built housing; rehabilitation, repair and replacement of manufactured homes; down payment assistance, mortgage financing, home buyer counseling, and technical assistance for self-help.

DOWNTOWN REBOUND PLANNING GRANTS

(No funds currently available: 8/31/2006)

- Funding Source: **California Department of Housing and Community Development (HCD)**
<http://www.hcd.ca.gov/fa/>
- Description: Deferred payment development loans to finance the conversion of vacant or underutilized commercial and industrial structures into residential units; residential infill; and the development of high-density housing adjacent to existing or planned mass-transit facilities.
- Eligible Users: Local public entities, for-profit and nonprofit corporations, limited liability companies, limited equity housing cooperatives, Indian reservations and rancherias, and limited partnerships in which an eligible applicant or an affiliate of the applicant is a general partner.
- Policies & Guidelines: Applications will be invited by Notices of Funding Availability (NOFAs), which may be accessed at the HCD website.



State Grant Search Databases and MTC Library

WEBSITE	CATEGORY	ORGANIZATION
http://www.hcd.ca.gov/clearinghouse/	Housing-Financial Clearinghouse	HCD-State of California
http://www.mtc.ca.gov/library/tlc.htm	Livable Communities Library	Metropolitan Transportation Commission

General Grant Search Databases

WEBSITE	CATEGORY	ORGANIZATION
http://www.foundationsearch.com	Foundation Search	Create Partnerships
http://www.bigdatabase.com	Development Fundraising Database	Grant Development
http://www.ecivis.com	Grant Locator	Local Governments

STATE COMMUNITY DEVELOPMENT BLOCK GRANT PROGRAM

Funding Source: **California Department of Housing and Community Development (HCD)**
<http://www.hcd.ca.gov/fa/cdbg/PlanTech.html>

Description: Create or preserve jobs for low income and very low income persons.

Eligible Users: Counties with fewer than 200,000 residents in unincorporated areas and cities with fewer than 50,000 residents that are not participants in the U.S. Department of Housing and Urban Development (HUD) Community Development Block Grant (CDBG) entitlement program.

Policies & Guidelines: Grants of up to \$500,000 to provide loans to businesses, grants for publicly owned infrastructure, and microenterprise assistance. Individual project funding decisions are made by the jurisdiction. Businesses receiving loans must create or retain private sector jobs principally for low income and very low income persons.

Relevant Case Studies

THE VILLAGE AT FREMONT BART STATION – Fremont, California

DEVELOPMENT OF VACANT LOTS INTO A VIBRANT AND WELL-DEFINED COMMUNITY

Developers: Sun America, mixed-use housing; Pacific Capital Group, office

Key Site Statistics

- Acreage: 12-acre site
- Land uses: Office, retail, residential with 765 parking spaces
- Project financing: \$75 million
- Transit elements: Fremont BART Station, ACE Trains Transit Service

The Village is a mixed-use development within walking distance of the Fremont BART Station. The project has two components: an office building and a housing development with retail. The Fremont BART Station abuts the Central Business District (CBD) which is the densest development in the City of Fremont. The BART and ACE trains Transit Service serve this regional bio-tech and hi-tech employment center. The Concept Plan for Fremont's CBD envisions the downtown as a "vibrant and well-defined" community. Downtown has several large vacant lots interspersed with low density office and retail establishment. Some multifamily housing exists to the north of the BART Station outside the CBD.

Pacific Capital Groups has bought the office component on a 2.7-acre plot while Sun America Developers is developing the mixed-use housing component on the remaining land. There is a shared parking program in place. Parking for 463 vehicles are dedicated to the housing, 354 are in parking structures. Offices are assigned 135 parking spaces while 167 spaces are shared between housing residents and office workers. Developers have acknowledged that proximity to transit has been a big draw for the office space clients.



UPTOWN DISTRICT – San Diego, California

DEVELOPMENT OF VACANT BIG BOX STORE SITE INTO VIBRANT DISTRICT

Developers: Oliver McMillin Company, Oldmark & Thelan

Key Site Statistics

- Acreage: 14-acre area
- Land uses: 318 residential units at an average density of 43 units/acre; 145,000 square foot of retail and commercial space, including a 42,500 square foot supermarket, and a 3,000 square foot community center; residential and supermarket parking is underground and street level spaces are available for retail shoppers
- Project financing: \$70 million privately financed
- Transit elements: No single station; district is served by 4 or 5 Metropolitan Transit Development Board (MTDB) routes

The Uptown District development is a pedestrian-oriented mixed-use retail center and residential development that exemplifies the creative reuse of an auto-oriented “big-box” development. There was no public opposition to the project since it required relatively little change to the community. Unlike many other TODs, it is not focused around a single stop on a rail system. Instead, the Uptown District development is situated within one of San Diego's most walkable neighborhoods and may be thought of as a bus TOD with excellent transit service provided by several of MTDB's routes. Uptown is a wonderful example of how to accommodate the needs of the automobile and create a well-designed, pedestrian-friendly, mixed-use TOD.

CITYCENTER ENGLEWOOD – Englewood, Colorado

DEVELOPMENT OF A “DEAD” MALL INTO THE REGION'S FIRST TOD

Developers: Miller Weingarten Reality, Trammell Crow Residential

Key Site Statistics

- Acreage: 55-acre site
- TOD zoning: Englewood Town Center Master Plan
- Land uses: 438 rental units, 380,000 square foot retail; 150,000 square foot office; plus city hall and library
- Project financing: \$160 million project; \$123 million developer investment; \$18.5 million public improvements funded by City; \$5.7 million in RTD transit improvements
- Transit elements: LRT station, 8 bus bays, 910-space Park & Ride

Located next to Denver's SW corridor light rail, CityCenter Englewood is the region's first TOD. The 55-acre project features 438 apartment units, 380,000 square feet of retail, and 150,000 square feet of office over ground-floor retail. A new city hall and library were carved out of an old department store fronting onto a community amphitheater and sculpture plaza.

CityCenter Englewood is the transformation of the former 100-acre, 1.3 million square foot Cinderella City Mall into a new urban center. In 1997 the 29-year-old mall's last tenant closed for good. Although the site had been previously planned for redevelopment as a big box retail center, city leaders became interested in pursuing a mixed-use transit-oriented development to take advantage of the planned Regional Transportation District (RTD) light rail stop.

The City of Englewood took the lead in moving the project forward in partnership with a private nonprofit interested in promoting TOD. The city assembled the site and provided financing for streets and structured parking. The project has five key objectives: (1) Revitalizing the inner suburbs; (2) Replacing mall footprint with urban streets, parks, and pathways; (3) Integrating new development with transit; (4) Providing adequate parking for all uses; and (5) Integrating big-box retail.



EASTSIDE VILLAGE – Plano, Texas

DEVELOPMENT OF A MIXED-USE TOD IN A SUBURBAN DOWNTOWN

Developers: Robert Shaw, Amicus Partners

Key Site Statistics

- Acreage: 3.6-acre site
- TOD zoning: base zoning of 40 units/acre, developer-initiated planning process that resulted in density increase to 100 units/acre
- Land uses: 234 residential units, 15,000 square foot retail, 5-story 351-space parking structure, and 47 surface spaces
- Project financing: \$17.7 million project; developer investment \$15.7 million, City assembled the site, selected developer form RFQ, and paid for all off-side public infrastructure and streetscape improvements at a cost of \$2 million; a 70-year lease with three 10-year options
- Transit elements: LRT station, 4 bus lines

Helping anchor the rebirth of downtown Plano, Eastside Village is a \$17.7 million high-density mixed-use project fronting directly onto DART’s light rail station plaza. The 3.6-acre 245,000 square foot project features 234 apartment units and 15,000 square feet of ground floor retail. The 3- and 4-story building wraps around three sides of a 5-story, 351-space parking structure.

Eastside Village was the first major step to achieve the City’s vision to “Transform downtown into a compact, mixed-use, urban center consistent with the principles of new urbanism and transit oriented design to enhance the community’s quality of life and provide a model for sustainable development within a maturing suburban city.”

The City of Plano provided the leadership to make the project happen. They advocated for the station location, saw opportunity to marry development with the DART LRT platform, assembled the site, offered it for development, leased the land to Amicus Partners, paid for public infrastructure and streetscape improvements, increased the allowable density from 40 to 100 dwelling units per acre, and waived fees.

EMERY STATION – Emeryville, California

DEVELOPMENT FROM BROWNFIELD TO A PEDESTRIAN-FRIENDLY COMMUNITY

Developer: Wareham Development

Key Site Statistics

- Acreage: 20-acre site
- Land uses: 150 units of owner-occupied lofts and townhomes, a senior housing project, 100 units of rental apartments, ground floor mixed-use allowing retail, commercial or office uses, underground parking structure
- Project financing: \$200 million; City assisted with infrastructure costs, and the remainder was privately funded.
- Transit elements: Emeryville Amtrak Station, Emery Go-Round Shuttle Bus, which connects to MacArthur BART Station two miles away

Emery Station is a 20-acre mixed-use TOD anchored by an Amtrak station. The site is a former brownfield. The developer, Wareham Properties, and the City of Emeryville provided leadership to implement the project. The project includes reuse of old industrial buildings and new construction. EmeryStation is an example of how a developer with a long-term view and a small city can partner and create a significant TOD.

In 1996, the City completed construction of a pedestrian bridge over the rail tracks to a nearby mixed-use center. The bridge and a free shuttle service (Emery Go-Round) link Emeryville’s busiest business, retail and entertainment centers. In 1998, construction began on EmeryStation Plaza, a three-building, 550,000 square foot mixed-use complex on the north, east, and south sides of the Amtrak station. The first phase of the project is a 240,000 square foot, 5-story office building with ground-floor retail and two levels of parking below. Between 10% and 15% of the new development is planned for ground-floor mixed-use, allowing retail, commercial, or office uses as the market demands.



JERSEY CITY AND HOBOKEN – New Jersey

CITIES BUILT AROUND SUCCESSFUL TRANSIT FACILITIES

Developers: Multiple

Key Site Statistics

- Land uses: Residential, commercial, retail, and civic uses
- Transit elements: Light rail stations

Jersey City is one of the top 10 cities nationwide for job growth. Three thousand new housing units in the city are within a half mile of downtown light rail stations. The property values in the area have increased from \$200K – \$300K before the light rail station was built to \$4 – \$6 million afterwards. A new 86-acre New Urbanist development with an additional 16,000 housing units is being built downtown. Sixty percent of residents who live near downtown take transit to work.

Hoboken's population grew an outstanding 4.1% from 2000 – 2005. Thirty-eight percent of the city's population is aged 20 – 34. These young professionals like the walkable, transit-oriented neighborhoods and nightlife of Hoboken. Single lots near the light rail station were \$100,000 before the station was constructed; now the same lots are worth \$800,000. Ridership on light rail is up 30.2% since 2003.

MOCKINGBIRD STATION – Dallas, Texas

DEVELOPMENT OF A NEW MIXED-USE TOD

Developers: Kenneth H. Hughes / David W. Dunning

Key Site Statistics

- Acreage: 10-acre site
- TOD zoning: Mixed-use zoning, no TOD provisions
- Land uses: 211 upscale loft residences, 180,000 square feet of retail, theater and restaurants, 140,000 square feet of offices; 1,418 parking spaces
- Project financing: \$145 million privately financed project
- Transit elements: LRT station, Park & Ride and bus transfer center, developer paid for pedestrian bridge connecting station to project

Located next to Dallas's DART light rail and the North Central Expressway, Mockingbird Station is a \$145 million, 10-acre mixed-use TOD project featuring an art house movie theater, 211 loft apartments at a density of 234 units per acre, upscale retail, a planned new hotel, offices and restaurants.

With the exception of federal contributions towards local infrastructure, the development has been privately financed. Mockingbird Station was created without any subsidies, TOD planning or supportive policies by the regional planning agency, the City of Dallas or DART.

The developer estimates that he had to build \$6 million worth of excess (structured) parking for the project. The city allowed the project to build only 1,600 spaces (2,200 were required, 1,400 are built thus far) by granting a mixed-use parking reduction credit. It refused to reduce parking further to reflect transit's proximity. The developer estimates he may have only needed to provide 1,300 spaces, acknowledging that some tenants may have resisted the lower figure.



OHLONE-CHYNOWETH COMMONS – San Jose, California

AN AFFORDABLE TOD DEVELOPED ON AN UNDERUSED PARK & RIDE LOT

Developer: Eden Housing

Key Site Statistics

- Acreage: 7.3-acre site
- TOD zoning: Planned Unit Development with project-specific zoning, required 2 spaces per unit.
- Land uses: 197,000 square foot with 195 units, 4,400 square foot retail
- Project financing: \$31.6 million project; \$14.5 million in tax-exempt bonds, \$824K in federal transportation funds for improvements, a \$500K affordable housing grant.
- Transit elements: LRT Station, 3 bus routes, 240 space Park & Ride

Located on Guadalupe light rail transit line in San Jose, Ohlone-Chynoweth Commons is a medium density mixed-use TOD. The project's housing, retail and community facilities were developed on an underused light rail Park & Ride lot. For this project, Valley Transportation Authority (VTA) issued a request for proposal seeking a developer for the 7.3-acre site. The former 1,100-space Park & Ride now includes: 240 Park & Ride spaces, 195 units of affordable housing, 4,400 square feet of retail and a day care center.

At 27 dwelling units per acre, the residential density of the Ohlone-Chynoweth Commons is relatively high compared to the predominantly single family neighborhood surrounding it. Ohlone-Chynoweth is a rare example of a Park & Ride converted to TOD without replacement of the commuter parking in structures or on another site. The developer, Eden Housing, has a 75-year lease for the site from VTA.

Ohlone-Chynoweth Commons provides affordable housing for families earning between 30 percent and 60 percent of the area median income in a community where an average market-rate two-bedroom apartment is renting for as much as \$1,600 a month. The City has aggressively sought to locate housing next to transit. Since 1990 over 20,000 units of housing have been built or approved next to transit in San Jose.

ORENCO STATION – Portland, Oregon

DEVELOPMENT OF A NEW TRANSIT-ORIENTED COMMUNITY

Developers: Pacific Reality Associated, LP, Master Developer; Costa Pacific Homes, Residential

Key Site Statistics

- Acreage: 190-acre site
- TOD zoning: Orenco Station Master Plan
- Land uses: 1,834 units, 70,000 square foot retail/dining, 31,000 square foot office
- Project financing: \$76.3 million development cost for core residential
- Transit elements: LRT station, 2 bus lines, 180 space Park & Ride

Orenco Station is a 190-acre, transit-oriented new community on the Westside light rail transit line in the suburbs of Portland, Oregon. Its pedestrian-oriented master plan provides for 1,834 dwelling units, including single-family homes, townhomes, accessory units, loft units, and apartments. The project also includes a mixed-use town center with offices and housing above ground-floor retail. Residential sales prices at Orenco Station are running 20 to 30 percent above the local area average. Commercial occupancies have been high, and rents are estimated to be roughly 10 percent higher than surrounding properties.

The site was originally zoned for industrial use and later for subdivision housing. Zoning for the development changed, however, when the site was designated a "town center" in the Portland Metro Area 2040 Plan. Importantly, the Plan specifies legally binding requirements for all Westside station areas, and mandates minimum densities and residential density targets at varying distances from light-rail stops, mixed-use development in station areas, pedestrian-oriented buildings, prohibitions on auto-oriented land uses, and reduced parking.



The project was completely privately financed, with the exception of a \$500,000 federal clean air grant for wider sidewalks and ornamental lighting. Surveys of residents reveal that 18.2 percent of work trips are on the bus or LRT. Nearly 7 in 10 residents report that their transit use has increased since moving to the neighborhood.

PLEASANT HILL BART STATION AREA – Pleasant Hill, California

DEVELOPMENT OF SURFACE PARKING INTO WALKABLE “URBAN VILLAGE”

Developer: Millennium Partners

Key Site Statistics

- Acreage: 140 acres around Pleasant Hill BART Station; 18-acre redevelopment of vacant parking lot
- Land uses: Depending on market conditions and public approvals, the project will contain either 290,000 or 456,000 square feet of office space and either 274 or 446 apartments and for-sale townhouses, a childcare facility, and 42,000 square feet of ground floor retail and restaurants
- Project financing: \$235 million; \$40 of the total in public money
- Transit elements: Pleasant Hill BART Station

Pleasant Hill BART provides an important example of a suburban locale where a transit-oriented neighborhood has been taking shape incrementally over the course of three decades. The Pleasant Hill BART Station was undergoing its second phase of planning and development around 2001, which promises to improve the station’s connections to the surrounding community by structuring Park & Ride facilities to make room for a walkable mixed-use development. In 1995, BART worked with the local redevelopment agency to select Millennium Partners as the company to redevelop its parking lots.

After several years of iterations and a very popular community involvement process, a draft plan with wide community support appears headed for approval. This plan calls for replacing the 18 acres of surface parking with a walkable “Urban Village” replete with a town square and community green. As part of the TOD, the County Redevelopment Agency would finance the replacement of BART parking, as well as assisting with providing other public facilities and affordable housing. Subject to negotiations, the Redevelopment Agency would be a partner with BART in a long-term ground lease, and would receive a proportionate share of revenues from the new development.

Commuter parking for the station remains at capacity, as BART ridership is drawn from a wide area. To recover the 1,477 surface parking spaces that BART will lose by leasing its land for new transit-oriented development, replacement parking will be provided in a new garage. Private parking for residential and commercial uses will be provided within those buildings.

