



San Mateo County Transit-Oriented Development Opportunity Study

final report

July 2007



Prepared for the San Mateo County Transit District

Prepared by HNTB Corporation Strategic Economics Hexagon Transportation Consultants

SAN MATEO COUNTY TRANSIT-ORIENTED DEVELOPMENT OPPORTUNITY STUDY

Final Report July 2007

Prepared for the San Mateo County Transit District

Prepared by HNTB Corporation Strategic Economics Hexagon Transportation Consultants

ACKNOWLEDGEMENTS

TOD Partnership Committee

Neal Martin, City of Atherton Carlos De Melo, City of Belmont Randy L. Breault, City of Brisbane John Swiecki, City of Brisbane Maureen Brooks, City of Burlingame Andrea Ouse, Town of Colma Kevin Guy, Town of Colma Terry Sedik, City of Daly City Arlinda Heineck, City of Menlo Park David Boesch, City of Menlo Park Ralph Petty, City of Millbrae Susan Moeller, City of Redwood City Tambri Heyden, City of San Bruno Aaron Aknin, City of San Bruno Mark Sullivan, City of San Bruno Elizabeth S.R. Cullinan, City of San Carlos Stephen Scott, City of San Mateo Gary Heap, City of San Mateo Mark Duino, San Mateo County Susy Kalkin, City of South San Francisco Mike Lappen, City of South San Francisco

SamTrans

Corinne Goodrich, Project Director, Manager of Special Projects Brian Fitzpatrick, Manager of Real Estate

Core Working Group

Marisa Cravens, ABAG Val Menotti, BART Bruno Peguese, BART Beth Thomas, Caltrans Liam Cunningham, Caltrans Becky Frank, Caltrans Tom Madalena, C/CAG Valerie Knepper, MTC Joe Hurley, San Mateo County Transportation Authority Duane Bay, County of San Mateo Department of Housing Dorcas Cheng-Tozun, County of San Mateo Department of Housing Janet Stone, County of San Mateo Department of Housing Chris Mohr, Housing Leadership Council San Mateo County

Consultant Team

Camille Tsao, HNTB Corporation Mika Miyasato, HNTB Corporation Rick Phillips, HNTB Corporation Sharon Kyle, HNTB Corporation Mike Bernick, HNTB Corporation Patrick Sheehan, HNTB Corporation Dena Belzer, Strategic Economics Wells Lawson, Strategic Economics Abby Thorne-Lyman, Strategic Economics Nadine Fogarty, Strategic Economics Jill Hough, Hexagon Transportation Consultants

This study is funded under the FTA's State Planning and Research Projects (Section 5313(b) through Caltrans and the Metropolitan Transportation Commission.

TABLE OF CONTENTS

Exe	cutive S	ummary	1
1.0	Int	roduction	14
	1.1	Background and Study Objectives	15
	1.2	Study Team and Stakeholders	18
	1.3	Other Regional Studies	19
2.0	Ma	rket Overview	21
	2.1	Residential Development	22
	2.2	Office Development	30
	2.3	Retail Development	40
3.0	Exi	sting Conditions	47
	3.1	Methodology	47
	3.2	Findings	48
4.0	Op	portunities and Constraints	50
	4.1	Issues and Constraints	50
	4.2	Zoning Ordinances and Policies	50
	4.3	Station Access	52
	4.4	Visibility and Connectivity with Existing Activity Centers	54
	4.5	Site Availability or Ease of Assembly	54
	4.6	Environmental Issues or Conditions	55
	4.7	Market Potential	56
5.0	Int	roduction to Phase II	63
	5.1	Phase II Overview	63
	5.2	Phase II Station Area Criteria	63
	5.3	Preliminary Recommendations for Phase II	65
	5.4	Phase II Focus Areas	67
6.0	Pha	ase II Findings	68
	6.1	Small Scale Infill Development Feasibility Analysis	68
	6.2	Small Parcel Development	70
	6.3	Land Assembly	81
	6.4	Affordable Housing	81
	6.5	Parking Management	83
	6.6	Promoting Bicycle Access	84
	6.7	Public Outreach	84
7.0	Tra	insit Benefit Assessment	86
	7.1	Description of Transportation Network	86
	7.2	Scenarios	86
	7.3	Findings	88

	7.4	Conclusions	92
8.0	Rec	commendations and Actions	93
	8.1	Promoting Incremental Infill Development	93
	8.2	Managing Parking	102
	8.3	Improving and Encouraging Bicycle Access	109
	8.4	Public Outreach Strategies	112
	8.5	Short-term and Long-term Actions	115
	8.6	Implications for TOD in San Mateo County	119

APPENDICES

Station Area Profiles

- A. Atherton Caltrain station in Atherton
- B. Bayshore Caltrain station in Brisbane/San Francisco
- C. Belmont Caltrain station in Belmont
- D. Broadway Caltrain station in Burlingame
- E. Burlingame Caltrain station in Burlingame
- F. Colma BART station in Colma/Daly City
- G. Daly City BART station in Daly City
- H. Hayward Park Caltrain station in San Mateo
- I. Hillsdale Caltrain station in San Mateo
- J. Menlo Park Caltrain station in Menlo Park
- K. Millbrae BART/Caltrain station in Millbrae
- L. Redwood City Caltrain station in Redwood City
- M. San Bruno BART station in San Bruno/South San Francisco
- N. San Bruno Caltrain station in San Bruno
- O. San Carlos Caltrain station in San Carlos
- P. San Mateo Caltrain station in San Mateo
- Q. South San Francisco BART station in South San Francisco
- R. South San Francisco Caltrain station in South San Francisco

Core Working Group and TOD Partnership Committee

- S. Core Working Group Members
- T. TOD Partnership Committee Members
- U. TOD Partnership Committee Questionnaire

Infill / Small Parcel Development Analysis

- V. Developer Interviews
- W. Cash Flow Analysis

FIGURES

Figure 1-1: Study Area 17
Figure 2-1: House Price Index 22
Figure 2-2: Residential Development by City: Proposed, Permitted and Under Construction 24
Figure 2-3: Major Residential Projects in San Mateo County
Figure 2-4: Historical Trends in Office Vacancy and Asking Rates for San Mateo County – 1998
to 2006
Figure 2-5: Major Office Projects in San Mateo County
Figure 2-6: Office Development by City: Proposed, Permitted and Under Construction
Figure 2-7: Regional Retail Supply
Figure 2-8: Major Planned, Permitted and Under Construction Retail Projects, San Mateo County
Figure 2-9: 2000 and 2030 TOD Household Types, San Mateo County
Figure 8-1: Sliding Platform – Lateral
Figure 8-2: Sliding Platform - Longitudinal
Figure 8-3: Downtown Redwood City Parking Prices103

TABLES

EXECUTIVE SUMMARY

The San Mateo County Transit-Oriented Development (TOD) Opportunity Study assesses opportunities and constraints and includes action plans for advancing TOD adjacent to Caltrain and Bay Area Rapid Transit (BART) stations in San Mateo County. This study is divided into two phases. Phase I includes a presentation of existing conditions, preliminary market analysis, assessment of opportunities and constraints, and recommendation of Phase II station areas. Phase II includes further analysis and recommendations for five station areas.

The following are the major conclusions of this study:

- Demand for employment and housing within station areas will increase through year 2030. The market assessment shows that through the year 2030 there will be a demand for approximately 13,400 housing units and 24.4 million square feet of office near transit (within ½ mile). The market potential for housing and different types of commercial development varies from city to city, and site to site. However, it is evident that development near transit stations is desirable. In locations where residential uses are appropriate, focusing development near transit can help to improve the regional housing-jobs balance, provide better transportation access to transit-dependent households, and increase opportunities for creating more affordable housing.
- Land assembly and on-site parking requirements are major barriers to TOD. Many cities in the County have zoning ordinances that are relatively supportive of denser development in downtowns and station areas. Staff from several San Mateo County cities indicated that the inability to assemble land has been a major barrier to realizing redevelopment plans. As a result, small-scaled infill development can play an important role in advancing TOD in San Mateo County and should be supported through outreach/education, streamlining the entitlements process, and modifying local policies to make infill development more financially feasible. Local developers indicated that meeting on-site parking requirements is one of the biggest challenges to the financial feasibility of smaller development projects. This study evaluated the feasibility of infill development assumptions.
- Addressing parking requirements and inclusionary (affordable housing) requirements is essential for incentivizing smaller redevelopment projects. This study concluded that for small-scaled infill development to occur, on-site residential parking requirements must be as low as **1.3 spaces** per housing unit for a small redevelopment project to be feasible. With these lower requirements, sites as small as 50 feet by 100 feet could accommodate a viable mixed-use project. This requirement could apply to a specific TOD zone and should be coupled with an overall parking demand strategy, which could include shared parking concepts, and free-up large surface parking lots for redevelopment. Reducing affordable housing requirements for developers of small parcels (less than 100 feet by 100 feet) or allowing them to pay in-lieu fees in place of providing affordable housing units could also increase the viability of smaller projects.

1

• TOD and quality of transit service matter in ridership growth. Year 2030 projections of increased ridership on the BART and Caltrain systems were compared between a Baseline (ABAG Projections 2005) and a TOD-intensive scenario. The ABAG projections already assumed a significant number of TOD projects would be built by 2030, and therefore, the difference between the two scenarios was not overwhelming. The ridership projections do not account for the quality of station access to surrounding development (i.e. pedestrian orientation vs. automobile orientation), which could affect ridership. However, it is evident from the model that quality of transit service (frequency and speed) is a major influence on the patronage levels at the stations independent of the density of development within a station area.

<u>Study Area</u>

The study area consists of the ½-mile radius surrounding the 18 BART and Caltrain stations in San Mateo County: four BART stations, 13 Caltrain stations, and one intermodal station that is served by both Caltrain and BART. These stations are within the jurisdictions of 13 cities and San Mateo County, and several station areas are within multiple jurisdictions.

Stakeholder Participation

At major milestones throughout the study, the project team met with city representatives, referred to as the TOD Partnership Committee, as well as staff from county and regional agencies, referred to as the Core Working Group. Members of the TOD Partnership Committee were individually interviewed during Phase I to learn about planning efforts within the station areas, barriers to TOD, and other experiences related to TOD. Representatives from eight station areas were interviewed at the start of Phase II to corroborate the Phase I findings and determine how to focus the recommendations for advancing TOD. The Core Working Group and TOD Partnership Committee were convened at the beginning of the study, and at the end of Phase I and Phase II. Local developers were interviewed to gain their perspective on the challenges of sponsoring smaller-scaled development projects.

PHASE I

Existing Conditions

The population that lives within the 18 station areas totals approximately 113,000. Individual station area populations range from 2,800 to 11,700. Slightly more than one-fifth of all households in San Mateo County live near transit. Single households are the most likely to live near transit, while married couple family households are the least likely. The percentage of employed residents living within station areas that drives alone to work ranges from 63 to 90 percent. Thirty-five percent of San Mateo County residents who live in San Mateo County work in San Francisco or Santa Clara Counties. People who work in San Mateo County commute from all over the Bay Area and retailers are supported by shoppers from outside the County as well.

The median income for households within all of the station areas averages at just under \$65,000, ranging from \$39,900 to \$101,500. In April 2006, the median price for a home in San Mateo County was \$750,000, compared to \$628,000 in the Bay Area.

Residential uses are the most predominant land use in the station areas in Atherton, Belmont, Broadway, Daly City (San Francisco data not included), and San Carlos. Station areas with significant commercial or industrial uses are Hayward Park, Hillsdale, Redwood City, San Bruno BART, San Bruno Caltrain, and South San Francisco Caltrain station. The residential and combined commercial/industrial uses are about equivalent in the station areas of Burlingame, Menlo Park, Millbrae, and San Mateo. In the South San Francisco BART station area, the predominant land uses include a mix of residential, commercial, and public/institutional uses. In the Colma station area, public/institutional uses and commercial/industrial uses are fairly even. In the Bayshore station area, the predominant land uses are vacant and industrial (San Francisco data not included).

Land ownership information was compiled for parcels within the station area. Stations areas with publicly-owned land that has potential for redevelopment (i.e. is vacant or underutilized) include Belmont, Colma, Millbrae, and San Carlos.

Opportunities and Constraints

The constraints to furthering TOD in the station areas were grouped into five categories: 1) zoning ordinances and policies, 2) station access, 3) visibility and connectivity to existing activity centers, 4) site availability and ease of assembly, and 5) environmental issues or conditions.

The cities in this study with the most supportive zoning ordinances and policies for TOD are San Mateo and Redwood City. Burlingame, Daly City, Menlo Park, Millbrae, San Bruno, San Carlos, and South San Francisco also have policies that support some level of TOD, though they may be more conservative in terms of densities allowed or parking required for new development. Many cities have engaged in some planning effort that encourages redevelopment activity in their downtowns or existing commercial districts, and mixing housing with commercial uses. The most prohibitive regulatory frameworks for advancing TOD are found in Atherton, Belmont, and Brisbane.

Station access (facilities at the station and connecting transit/shuttle service) is a constraint at a little over half of the stations, but can be addressed through station improvements or the addition of connecting services at selected 'destination' stations. The stations with inadequate facilities are those that may have a shortage of vehicle/bicycle parking, may lack loading zones for transit or vehicle drop-off, or are not wheelchair accessible. Bayshore, Daly City, South San Francisco Caltrain, San Bruno Caltrain, Broadway, Burlingame, and Atherton stations fall under this category. The destination stations that could benefit from added transit and/or shuttle services are Bayshore, (which will have a MUNI Third Street light rail transit connection in the future), Hayward Park, and San Mateo stations. Station facilities and ease of access potentially increase ridership as well as TOD. The TOD itself is part of a station area environment, and needs a supporting environment to realize higher transit ridership.

Visibility and connectivity with existing activity centers are constraints at a little over half of the stations. Opportunities to improve this constraint include establishing a wayfinding/signage program or altering the surrounding physical environment to improve connections to the station. In some cases, the surrounding environment is limited by transportation infrastructure – a suburban street network with long blocks and wide boulevards, freeway overpasses, or railroad tracks – that is relatively fixed and difficult to change. The station areas of Bayshore, Colma, Daly City, South San Francisco Caltrain, Millbrae, San Bruno BART, Hillsdale, Hayward Park, and Atherton have these types of fixed infrastructure constraints. For station areas with adjacent vacant or underutilized land (i.e. large parking lots), transit-oriented redevelopment of these sites will help to create more activity at and around the station. These would include Bayshore, Belmont, Colma, Hillsdale, Millbrae, Redwood City, San Bruno BART, and San Carlos.

Site availability and ease of assembly is a constraint at over half of the stations where there are no large areas of vacant or underutilized land, or developable sites are small and scattered throughout the station area. Although large sites are ideal for developing large-scale TOD, it is also possible to promote TOD through incremental infill opportunities at smaller sites. Station areas that are relatively built-out, such as those in Belmont, Broadway, Burlingame, Daly City, Menlo Park, Redwood City, San Bruno Caltrain, San Carlos, and San Mateo, all have opportunities for infill development and to intensify existing land uses. The Atherton station does not have site availability because new development is prohibited. Redevelopment could only occur where its civic uses are located. Ease of assembly is an issue that has to do with landowners and their willingness to sell or redevelop their property. Working with private landowners has been cited as a potential issue for a few station areas, namely Daly City and Millbrae.

Of the five types of constraints, only a few station areas are limited by environmental issues or conditions. These issues include environmental contamination near the Bayshore station, and airport noise impacts to the San Bruno and Millbrae station areas. Both of these issues have led to restrictive zoning in the station areas. As Colma dedicates a large part of land as cemeteries, it is also considered as environmental constraints since cemeteries are "sensitive receptors" to impacts.

Market Assessment

Demographic trends and interviews with San Mateo County brokers reveal a growing interest among prospective buyers in transit proximity and a strong demand for higher density housing likely to be found at transit stations, namely condominiums and townhomes.

An estimate of future demand for housing near transit expects that an additional 13,400 households will seek out homes within in ½ mile of San Mateo County's transit areas between now and 2030. Among the households expected to drive demand for housing near transit are those headed by persons 65 years of age and older. Station areas that have strong market potential for a higher density transit-oriented housing product are Belmont, Burlingame, Daly City, Millbrae, Redwood City, San Mateo, and San Carlos.

Based on the gross employment density of the average office building in San Mateo County, demand for an additional 24.4 million square feet of gross office space near transit stations is expected by 2030, which equates to one million square feet per year. Station areas that have strong market potential for future office development are mostly in the North County: Bayshore, Colma, Daly City, Millbrae, and South San Francisco Caltrain. Strong office development is also anticipated in part of the South County, such as in Menlo Park and Redwood City. The station areas will be increasingly populated by households without kids. These households are expected to spend more of their disposable income on food, entertainment and specialty items, which are more compatible with the goals of 'destination' retail within transit areas. Retail is a supporting use to residential and office uses, which comprise the amenities that attract people to live and work in a particular location. The potential destination retail station areas are Burlingame, Daly City, Hillsdale, Redwood City, and San Bruno BART. Many station areas already have commercial districts that could benefit from upgrades, intensification of commercial uses, or the addition of housing units above the ground floor.

PHASE II

At the beginning of Phase II, the project team met with representatives (city and county staff) from seven station areas to verify the issues that were raised in Phase I and to identify the tasks for Phase II that would address specific obstacles while also providing useful tools for other station areas. The TOD study team initially recommended eight station areas for consideration in Phase II. After meeting with representatives from seven of the station areas, five station areas were selected for Phase II based on the transferability of recommendations to other station areas, readiness for TOD, data availability, and interest in participation.

A common theme among the station areas was the issue of land assembly, where cities, such as Millbrae and Redwood City, have faced challenges related to assembling privately owned parcels to create large redevelopment sites. This was either due to the high cost of land or property owners' unwillingness to sell or redevelop.

Another related issue is the inability to incentivize infill development. In several cases, such as in San Bruno and South San Francisco downtown areas where their General Plans allow denser development, but little to no densification has been realized. Possible reasons for the lack of densification include on-site parking requirements that are too high, property owners' unwillingness to redevelop, and a lengthy entitlements process.

Station access was cited as an obstacle for some station areas, such as San Bruno BART, South San Francisco Caltrain, and Colma BART. This is due to predominantly auto-oriented surroundings and a lack of convenient pedestrian connections to the immediate station area and potential development sites. The elevated portion of U.S.101 divides downtown South San Francisco and a predominately employment area in the East of 101 Area. In Belmont Caltrain, Colma BART, San Bruno BART and Redwood City Caltrain station areas, existing development near the station includes large areas of surface parking, which through parking management and policies could be freed up for TOD.

Phase II focused on five station areas for which to develop strategies and action plans based on these meeting results. These five station areas are in cities that represent different stages of 'TOD readiness', yet are dealing with some of the same issues as other station areas. The five station areas are:

Belmont Caltrain Millbrae BART/Caltrain Redwood City Caltrain San Bruno Caltrain South San Francisco Caltrain

The Colma BART and San Bruno BART stations face challenging issues, particularly with regard to station access and physical barriers between the station and surrounding areas. The project team felt that tackling these physical design issues would have been of great value to the individual stations, but that these solutions would not have been as transferable to other station areas as the other tools and strategies that were developed. Therefore, recommendations for these two stations areas were not developed.

In addition to the development of strategies to intensify TOD, year 2030 ridership projections were estimated for the BART and Caltrain systems using a TOD-intensive land use scenario. These were compared with ridership forecasts for the year 2030 using the land use assumptions from Association of Bay Area Governments (ABAG) Projections 2005.

Analysis and Findings

Land Assembly

The project team completed a two-step analysis to identify mechanisms for promoting development through land assembly. First, the team interviewed developers to gain an understanding of their perspective on private land assembly. Second, the team completed a financial and physical analysis of typical parcel sizes near the Millbrae, San Bruno and South San Francisco Caltrain stations in order to identify the minimum developable parcel size in these areas. In this second step, a variety of conceptual development programs were considered with varying building heights, with residential-only and mixed-uses, and with lower parking ratios (1.3 spaces per residential unit and 0 spaces for commercial). The findings from the analysis are as follows:

- Incremental land use intensification does work. On small parcels, developers can achieve high densities at a small scale. Physical and financial analyses show that projects can achieve densities ranging from 70 to 139 units per acre, or from 4 to 32 units per parcel depending on the parcel size.
- **High densities may even be more palatable at this smaller scale**. While the financial margins are much smaller and the projects can be challenging to build, incremental development is a good way to intensify uses around transit without large-scale projects.
- The smallest parcel size (25 feet by 100 feet) is too narrow to support dense development due to parking limitations. The team found that residential and mixed-

use development was achievable on a parcel as small as 50 feet by 100 feet, while development with underground parking required a 100 feet by 100 feet parcel.

- On-site parking requirements greatly influence the feasibility of small parcel development. Infill development for lots 100 feet by 100 feet or smaller is not financially feasible unless current ratios, typically 1.5 to 2.0 spaces per dwelling units, are lowered to 1.3 parking spaces per dwelling unit.
- Land use policies can greatly influence the feasibility of incremental development. Cities need to be strategic about land use requirements such as:
 - Requiring mixed-use development, because retail greatly affects the financial feasibility and physical constraints of small infill projects;
 - Establishing low parking requirements and shared parking strategies for retail; and
 - Reassessing affordable housing policies.

Incremental Intensification through Infill Development

To develop recommendations for encouraging the intensification of land uses through small parcel development, members of the project team interviewed five developers who have experience developing infill projects on the Peninsula (San Mateo County and Mountain View). Their perspectives provided insight into the obstacles faced by the developer community, which fed into further research by the consultant team on recommended strategies to support infill development. The findings from this research are as follows:

- Shared parking policies are key to making mixed-use development work. Parking is the major constraint to developing small parcels. Reduced parking requirements for residential development and shared off-site parking for commercial uses can make projects physically and financially feasible.
- Streamlining the entitlements process is especially important. Many Developers choose not to pursue small parcel projects because they require similar levels of efforts on entitlement process and public outreach as larger, hence, more profitable projects.
- **Public facilitation of land assembly is beneficial.** Private land assembly requires balancing multiple negotiations in a timely process, in order to ensure that a proposed project can stay cost effective. Holding land for an extended time is financially infeasible in the private market because it is difficult to obtain the financing to do this.
- Developers of small parcels are often local entrepreneurs with strong community involvement but limited resources. Local residents or entrepreneurs can have greater success with outreach for a given project, but are often less experienced and have fewer financial resources.
- Cities that are anticipating small parcel development need to identify where these public amenities are most important, and to coordinate mechanisms for achieving these amenities with incremental development
- Inclusionary housing requirements were not financially feasible for small-scale developments (less than 100 feet by 100 feet). In-lieu fees for inclusionary housing

requirements are financially feasible alternatives for a wide range of development scenarios. Rents from commercial space are significantly less than the revenues that can be achieved from condominium units. Adding retail space to the ground floor occupies critical land that would otherwise be used for on-site residential parking and is not feasible for small parcels under (50 feet by 100 feet).

Transit Benefit Assessment

The San Mateo County travel demand model was used to forecast ridership on Caltrain and BART in the year 2030 for two scenarios: the ABAG TOD scenario and the TOD-intensive scenario. The purpose of modeling the two scenarios was to isolate the effects that additional development could have on ridership if the cities in San Mateo County were to capture their full TOD potential. The ABAG scenario includes demographic and land use assumptions from its *Projections 2005* forecast, which assumes that much of the planned development around transit stations will occur. The year 2030 transportation network includes transportation improvements and transit projects that are in the 2030 Regional Transportation Plan adopted by the Metropolitan Transportation Commission. It does not include the Caltrain extension to the Transbay Terminal in San Francisco. It assumes that Caltrain is electrified and is operating frequent service with 172 trains per day (compared to 96 trains in 2007).

The land use assumptions for the TOD scenario were developed in three steps. First, households and jobs generated by existing specific plans were quantified, adding up to over 9,100 households and 25,000 jobs, many of which are accounted for in ABAG's *Projections 2005*. Second, the share of vacant/underutilized land in each half-mile station area was estimated and households/jobs were calculated based on potential land use mix and densities. This included the following station areas:

- South San Francisco BART
- San Bruno BART
- Hayward Park Caltrain
- Hillsdale Caltrain
- Belmont Caltrain
- Bayshore Caltrain

Finally, a 15-percent increase in households and jobs was estimated for stations adjacent to existing downtowns, or other pedestrian-friendly areas. This included the following station areas:

- Burlingame Caltrain
- Menlo Park Caltrain
- San Bruno Caltrain
- San Carlos Caltrain
- San Mateo Caltrain
- South San Francisco Caltrain

The TOD scenario assumes that by 2030 an additional 7,300 households and 9,100 jobs could be added to station areas in San Mateo County beyond ABAG's *Projections 2005*. The ABAG

projections already assume large increases of households and jobs within the station areas, which cannot be realized without supportive policies and actions by local government. The other station areas in San Mateo County not listed above (Atherton Caltrain, Broadway Caltrain, Colma BART, Daly City BART, Millbrae BART/Caltrain, and Redwood City Caltrain) experienced future growth in the Projections 2005 forecast. However, no additional households or jobs were added in the TOD-scenario because the ABAG forecast already maximizes the potential for TOD in those station areas. According to the ABAG forecast, employment growth is still expected to occur faster in TAZ's that are not near transit throughout the County.

When comparing daily ridership between the ABAG and TOD scenarios, the TOD scenario yields over 1,500 additional boardings and alightings on Caltrain and over 500 additional boardings and alightings on BART. A majority of the Caltrain ridership gains are at the San Francisco (4th and King) and Hillsdale stations. On the BART system (within San Mateo County), a majority of the ridership gains are at the Millbrae station and San Bruno BART station.

The model also predicted that transit mode share would increase for many trips ending in San Francisco (Note: this is without the extension to the Transbay Terminal). While the actual numbers are not substantial, the mode share increase is most significant for trips originating in Redwood City, San Mateo, Millbrae, and San Bruno and heading to San Francisco.

Quality of transit service appears to be a major influence on ridership, even more perhaps than TOD, based on the results of the transit benefit assessment for this study. The Baby Bullet (express) stations on the Caltrain line demonstrated the greatest ridership benefit, as did Millbrae station, which has a high level of BART, Caltrain, and bus service.

Implementation Strategies and Actions

Based on the analysis and findings, the project team developed strategies and actions to achieve a variety of objectives. First, policy recommendations and other strategies are presented to facilitate land assembly and encourage infill development. Second, strategies for managing parking and encouraging bicycle use address issues of station access and bridging the psychological distance between stations and their surroundings. Third, outreach strategies are outlined which will keep stakeholders engaged early in the process to facilitate TOD.

Land assembly

The following strategies are recommended to facilitate land assembly:

Short Term

- Establish a clearinghouse of vacant/available parcels and work with local brokers to maintain this information.
- Identify underutilized parcels and maintain a database of underutilized areas.

Long Term

• Consider use of redevelopment or other public agency involvement in assembling parcels.

- Initiate or update specific plans to ensure that a long-term vision for new development is clear, and local residents are supportive of development concepts.
- Consider supporting local implementation of innovative partnerships between property owners for development, such as enabling property owners to "option-in" on a development, rather than selling their property.

Infill Development

The following strategies are recommended to encourage infill development:

Short Term

- Support shared parking strategies between compatible uses.
- Reduce parking requirements for residential development near transit.
- Modify requirements for mixed-use development and allow residential-only development where acceptable.
- Recognize the role that local entrepreneurs play in the infill development process, and assist with brokering deals.
- Explore joint development opportunities with other public agencies that own land.
- Identify where public amenities are most important, and coordinate mechanisms for achieving these amenities with incremental development.

Long Term

- Establish specific and precise plans to clarify vision for development in an area and reduce steps in the entitlement process, such as environmental review.
- Modify zoning ordinances to encourage infill development with reduced setback requirements, exemption from height limit or Floor-to-Area Ratio (FAR) requirements, and increased densities on smaller parcels.
- Establish financing mechanisms for public parking structures, such as in-lieu parking fees for new development and assessment districts.

Parking Management

A comprehensive parking management strategy and supportive policies are essential for encouraging redevelopment. As was discovered in the analysis, parking requirements can be a major hindrance to infill development. Where surface parking occupies large areas of land in a station area, a parking strategy can help determine how to optimize existing parking supply and to plan for future parking needs. The City of Belmont's Economic Development Strategy is an example of an effort that could be complemented by a parking strategy to designate public parking areas and ensure that future development has access to parking supply, while freeing up valuable land for TOD.

Recommended short-term actions for parking management include:

- Designate city staff to be in charge of parking management.
- Conduct an inventory of public parking on-street and off-street and collect information on occupancy during peak weekday and weekend time periods.

- Encourage high turnover for high demand on-street parking spaces through time limits or meters.
- Create design guidelines for parking facilities to provide landscaping and other design features that complement the pedestrian environment and minimize the number of curb cuts to preserve sidewalk continuity.

Recommended long-term actions include:

- Create a TOD Overlay District, which sets reduced minimum parking requirements and establishes maximum parking requirements.
- Develop a shared parking program so that adjacent complementary land uses can optimize their parking supply.
- Work with local employers, as part of a Transportation Demand Management program to offer cash-out to employees in lieu of providing employee parking.
- Create a parking assessment district that funds the operation and, if necessary, the construction of public parking facilities.

Improving Access in Suburban Environments

Parking management strategies and policies can improve the pedestrian environment and encourage bicycle and transit use in denser, urban areas by leveling the playing field between automobiles and alternative modes. In more suburban environments where street configurations and existing development are not conducive to walking, improving bicycle access is one solution to improving circulation and access to transit without increasing automobile traffic or parking.

The East of 101 Area in South San Francisco, including Oyster Point, is an example of a major employment center that is in close proximity to a Caltrain station, the downtown, and other parts of the city, but appears to be far from those destinations because of its suburban development pattern and the freeway that separates it from the rest of the city. Since roadways in the area traverse through relatively flat terrain, improving bicycle access could potentially address this poor connection, encourage transit use, and perhaps stimulate patronage to local businesses and offer South San Francisco residents better access to jobs in Oyster Point and the rest of the area East of 101.

Short-term strategies focus on increased levels of coordination, safety and public awareness.

- Prepare a bicycle plan
- Increase bicycle parking locations in downtown
- Improve signage and pavement markings
- Install loop detectors for bicycles at key signalized intersections
- Promote bike-to-work day coordination amongst local businesses, employers, and bicycle groups
- Investigate bicycle rental stations, as seen in Germany and France

Long-term strategies focus on improving bicycle facilities and access and providing rental stations.

- Fill gaps in the bicycle network identified in the bicycle plan
- Construct Railroad Avenue bike path to connect residents with Oyster Point
- Construct an underpass at the relocated Caltrain station
- Provide bicycle rental stations, similar to those in Germany and France

Public Outreach

As discussed in previous sections, public outreach plays an important role in achieving many of the objectives related to encouraging TOD. This includes engaging stakeholders early on and maintaining avenues of communication with different stakeholder groups, by:

- Conducting workshops on the specific plan/precise plan/general plan process and development;
- Working with property owners to find acceptable ways for them to participate in redevelopment at varying degrees of involvement;
- Working with other public agencies to take advantage of joint development opportunities;
- Working with developers to shorten the entitlements process and address other obstacles to infill development; and
- Promoting events such as Bike-to-Work Day to bicycle groups, employers, and local businesses.

As the City of Belmont continues to develop the Economic Development Enhancement Target Site Strategy, the city acknowledges that they need a broader community participation process. It is preferable to start the community involvement as early as possible and establish an inclusive community planning process. Stakeholders include, but are not limited to, developers, private property owners, public property owners, homeowners, and local business owners.

The City has indicated a desire to coordinate its General Plan update concurrently with the preparation of the Request for Qualification (RFQ) targeting owner participants and developers. Therefore, it is crucial for the City to get consensus on its economic development targeted site strategy (from all stakeholders) in order to "facilitate developer negotiations and project implementation." Timing for the implementation of community outreach should occur as the Request for Qualifications / Proposals is being formulated and General Plan development is initiated.

The project team recommends that the City implement a proactive and inclusive public outreach/education campaign to explain the nuances of the proposed Economic Development Enhancement – Target Site Strategy Plan. The approach could be a series of community planning study sessions explaining the land use and development scenarios of the five target sites, examining financial/revenue projections, assessing parcel feasibility for development, reviewing proposed parking management strategies, and addressing community specific concerns surrounding planning/development. This process of early public involvement could positively set the stage for an ongoing community planning process—one that can help identify concerns, assist with issue resolution, open and continue a public dialogue, and heighten public awareness and understanding about planning and TOD efforts.

NEXT STEPS

Local governments in San Mateo County will play a pivotal role in advancing TOD in the County by addressing some of the barriers that have been identified in this study. Specifically, removing the obstacles to small-scaled infill development and addressing parking demand holistically should help to incentivize denser development around transit stations. At the County level, SamTrans and other agencies must continue to partner with local communities in providing high quality transit service and connections, and encourage TOD through coordination and financial incentives.

1.0 INTRODUCTION

Transit-oriented development – better known as TOD – is a planning concept that has gradually gained popularity in the U.S. over recent years, particularly in major metropolitan regions like the San Francisco Bay Area where traffic congestion and housing prices continue to rise. In San Mateo County, projected employment growth and the availability and location of affordable housing will continue to test the capacity of the local transportation system and the patience of commuters. There is already evidence of a strong demand for condominiums and townhomes, which are relatively less expensive than single-family homes and generally located close to services and amenities. Furthermore, an aging population in the county is expected to translate to a significant growth in demand for housing near transit by the year 2030.

The premise behind TOD is that the land surrounding transit stations has greater utility and value because of its accessibility, and if developed and designed appropriately, can serve many more people than a station surrounded by a fixed number of parking spaces or limited number of single family homes. The potential benefits of TOD can be realized by many: the people using the transit system who have convenient and economical access to housing, employment, and services; the businesses that can locate near other services and attract employees and customers; the transit system which can realize an increase in ridership; the property owners who benefit from increased value of their assets; and the public-at-large which benefits from better air quality and public health through reduced reliance on automobiles. Although the benefits of TOD are evident, implementation of TOD has been much more challenging due to a variety of constraints: an existing urban/suburban fabric that is unfriendly to pedestrians and too costly to change, neighborhood opposition toward densification and/or a change in land uses, risk aversion by developers and investors, lack of supportive local policies, and a lack of a standardized system or process for implementing TOD.

There are five key ingredients that factor into the success of TOD: (1) transit level of service including those of connecting transit services; (2) the physical environment at and around the station, including accessibility, urban design, and safety; (3) the land use mix and density of development; (4) the policy framework which encourages and promotes TOD; and (5) financing. The San Mateo County TOD Opportunity Study focuses on three of these ingredients. It examined land use mix and market potential, supporting the notion that the appropriate density and mix of uses is critical for placing the "highest and best" uses around stations. Ridership forecasting was conducted to test the potential ridership gains from TOD. Finally, the study also made some policy recommendations that can assist in providing incentives for attracting the type of growth that is desired.

1.1 Background and Study Objectives

The objective of this study is to advance TOD in San Mateo County through the development of:

- Data and information to assist cities and SamTrans;
- Partnerships between SamTrans and the cities and other agencies and stakeholders;
- Policy directives and legislative initiatives;
- Education of county decision-makers and other stakeholders;
- Action plans to move TOD forward within the station areas; and
- Creation of a "model" for TOD that will be useful to other transit districts and counties in the state.

This study is divided into two phases. The activities and findings of the work performed in Phase I includes the following tasks:

- An assessment of existing conditions relevant to TOD and station access around Caltrain and BART stations through site visits and data collection;
- An assessment of community and stakeholder attitudes toward TOD through interviews with local planning staff;
- An assessment of the existing planning and regulatory context relevant to TOD through research and interviews with local planning staff;
- A conceptual assessment of TOD opportunities and constraints at each site based on the above-described activities combined with an overview of real estate development market conditions;
- Meetings with the Core Working Group and the TOD Partnership Committee to further identify and clarify TOD opportunities and constraints;
- Determination of opportunity sites for further analysis in Phase II of this study based on input from the TOD Partnership Committee; and
- Coordination with other regional studies being conducted by City/County Association of Governments (C/CAG) of San Mateo County, ABAG, Metropolitan Transportation Commission (MTC), and BART.

Phase II included an in-depth analysis and evaluation of five (5) station areas selected by the TOD Partnership Committee and agreed to by SamTrans and the cities in which the station areas are located. The purpose of Phase II was to develop specific plans of action to initiate TOD at the selected station areas, including strategies for overcoming barriers identified in Phase I. Study Area

San Mateo County shares the southern border of the City and County of San Francisco and the northern border of Santa Clara County. It is located on the Peninsula west of the San Francisco Bay with most of its urbanized areas occurring on the Bay side along the north-south corridor that follows El Camino Real. In the northern part of the county, El Camino Real becomes Mission Street and extends into San Francisco. The rest of the major transportation routes in San Mateo County primarily run in the north-south direction as well: Interstate 280 (I-280) and U.S.

101 run on either side of El Camino Real. State Route 92 (SR 92) is the only major highway that crosses the County in the east-west direction, connecting the cities along the Bay side to the coastal communities on the west side of the San Bruno Mountains.

Caltrain is a commuter rail service that serves San Francisco, San Mateo, and Santa Clara counties, operating on the railroad, which parallels El Camino Real through most of the county. As a consequence, many of its stations front or are within close proximity to El Camino Real. North of the San Bruno station, Caltrain veers toward U.S. 101 and parallels it until reaching its terminus in San Francisco. Four Caltrain stations in San Mateo County have express Caltrain service, also referred to as "Baby Bullet," to San Francisco and San Jose.

BART is a rapid transit service that serves Alameda, Contra Costa, San Francisco, and San Mateo counties. In the northern part of San Mateo County, it serves stations in Millbrae, San Bruno, South San Francisco, Colma, and Daly City.¹ Millbrae is the only station with a cross-platform connection between BART and Caltrain. San Bruno and South San Francisco have BART and Caltrain stations, which are approximately one and two miles apart, respectively.

SamTrans operates bus and paratransit service in the county. MUNI (The San Francisco public transit provider) buses serve the Daly City BART station. There are also shuttles that operate between the major employment centers and BART and Caltrain stations.

As illustrated in Figure 1-1, this study includes the existing 18 BART and Caltrain stations in San Mateo County:

- 1. Atherton Caltrain station in Atherton (weekend service only)
- 2. Bayshore Caltrain station in Brisbane/San Francisco
- 3. Belmont Caltrain station in Belmont
- 4. Broadway Caltrain station in Burlingame (weekend service only)
- 5. Burlingame Caltrain station in Burlingame
- 6. Colma BART station in Colma/Daly City/Unincorporated San Mateo County
- 7. Daly City BART station in Daly City
- 8. Hayward Park Caltrain station in San Mateo
- 9. Hillsdale Caltrain station in San Mateo (Baby Bullet station)
- 10. Menlo Park Caltrain station in Menlo Park
- 11. Millbrae BART/Caltrain station in Millbrae (Baby Bullet station)
- 12. Redwood City Caltrain station in Redwood City (Baby Bullet station)
- 13. San Bruno BART station in San Bruno/South San Francisco
- 14. San Bruno Caltrain station in San Bruno
- 15. San Carlos Caltrain station in San Carlos
- 16. San Mateo Caltrain station in San Mateo (Baby Bullet station)
- 17. South San Francisco BART station in South San Francisco
- 18. South San Francisco Caltrain station in South San Francisco

¹ The BART station at the San Francisco International Airport is in the City and County of San Francisco.

Figure 1-1: Study Area



The station area is defined as the area within a one-half mile airline radius of the station. For more detailed analysis, the station area can be divided into three zones. These zones and their typical land use mix and density in a TOD setting are described as follows:

- <u>Zone A</u> <u>Transit Hub</u>: Includes the transit station and concentrated service and retail uses catering to transit patrons walking to and from the station. Typically, land use densities are medium to high and may be layered vertically with multiple-unit residences (such as townhouses and lofts) above ground-level retail and services.
- <u>Zone B</u> <u>Primary Area</u>: The walkable area within a ¼ -mile radius of a transit station includes a mix of residential and supporting service, retail, and institutional uses. This zone may be "auto-free" but usually includes "traffic calmed" streets that allow automobiles while favoring pedestrians. Densities are typically medium but may be high.
- <u>Zone C</u> <u>Secondary Area</u>: The area within ¼- to ½ -mile radius of the transit station includes a mix of residential and other uses that support Zones A and B. The area is walkable (up to a 10-15 minute walk from the transit station) but more supportive of automobile use. May also contain recreational and institutional uses with large sites such as schools and parks.

El Camino Real, a major north-south thoroughfare in the County, is located within ½-mile of most stations in this study. In Daly City, Mission Street, which is the northern extension of El Camino Real, is located within ½ mile of the Daly City BART station. The South San Francisco and Bayshore Caltrain stations are not in the vicinity of El Camino Real.

1.2 Study Team and Stakeholders

The study was conducted by the San Mateo County Transit District (SamTrans) with a consultant team that consists of HNTB Corporation, Strategic Economics, and Hexagon Transportation Consultants. It is funded under the Federal Transit Administration's State Planning and Research Projects (Section 5313(b)) through Caltrans and the Metropolitan Transportation Commission.

Two stakeholder committees are providing input to the study process. The Core Working Group (CWG) consists of representatives from the following county and regional agencies: ABAG, BART, Caltrans, C/CAG, MTC, San Mateo County Department of Housing, Housing Leadership Council of San Mateo County, and San Mateo County Transportation Authority. The CWG convened at the conclusion of Phase I and at the conclusion of Phase II.

The TOD Partnership Committee (TPC) consists of representatives from the cities that have agreed to participate in this study. The city representatives were interviewed individually to gather information and to understand opportunities and constraints related to TOD. The cities that participated in Phase I are: Atherton, Belmont, Brisbane, Colma, Daly City, Millbrae, Menlo Park, Redwood City, San Bruno, San Carlos, San Mateo, and South San Francisco. Seven of these cities were again interviewed in Phase II to determine the focus areas for developing recommendations. The members of the TPC were invited to attend the CWG meetings at the conclusion of Phases I and II. Outreach activities are described further in the Methodology and Recommendation sections of this report. See Appendix S for a list of the CWG members and Appendix T for a list of the TPC members.

1.3 Other Regional Studies

There are a number of regional studies that are being conducted in parallel to the TOD Opportunity Study. A majority of them pertain to housing and development in San Mateo County or along El Camino Real, which is within the station areas of almost all of the rail stations in this study. The "Access BART" study focuses on station access and land use surrounding the BART stations in the East Bay. These various studies and their relationship to the TOD study are described below.

1.3.1 Focusing our Vision (ABAG, MTC)

The purpose of *Focusing Our Vision* is to meld regional and local objectives into a shared planning strategy for the Bay Area. The basis for this strategy will be the principles behind the Regional Smart Growth Vision, developed in 2002 through the *Smart Growth Strategy/Regional Livability Footprint Project*. The primary deliverable from this effort will be locally developed, regionally negotiated and adopted "priority development areas." These areas, ideally, will reflect both the regional principles and common agreements about the direction for population growth in the region. The priority development areas will tend to be large in scale and multijurisdictional like the El Camino Real Corridor. The next step will be to secure the state and regional financial incentives that can assist in realizing the "on the ground" changes needed to turn the collective Vision into reality.

1.3.2 El Camino Real Corridors Program (ABAG)

The Corridors Program is a focused "Vision" implementation effort, targeting three regionally significant multi-modal corridors: San Pablo Avenue, East 14th/International Boulevard and El Camino Real. Its purpose is to assess local government commitment to and community support for the Regional Smart Growth Vision through outreach to learn about existing land use and transportation conditions, local planning efforts along the corridors and local government and neighborhood needs and concerns. Barriers and solutions to both planning and building infill and transit-oriented projects are also being explored. The primary deliverable of the Corridors Program will be an assessment of existing and future land uses and major transportation investments in neighborhoods along the corridors. These current conditions and plans can function as a regional progress benchmark for meeting regional objectives, including the quantitative "targets" in ABAG's Projections. What is learned through this program will be used to develop both outreach and technical assistance programs and services. ABAG and the TOD study team collaborated during Phase I to gather/exchange data and interview city representatives in San Mateo County. This collaboration will continue throughout the remainder of the study.

1.3.3 Grand Boulevard Initiative (SamTrans, VTA)

The Grand Boulevard Initiative is a collaborative effort between San Mateo and Santa Clara counties, the cities along El Camino Real, local and regional agencies, and representatives from labor, environmental and private business to improve the performance, safety, and aesthetics of the El Camino Real corridor. The study area includes the El Camino Real right-of-way as well as a quarter-mile swath extending from each side of the center divider. The 47-member Grand

Boulevard Task Force has been convening quarterly since spring 2006 to coordinate planning efforts, develop incentives and other mechanisms, and secure funding to realize the vision of transforming El Camino Real into a pedestrian and transit friendly, high performing multimodal arterial where all modes move efficiently and safely. Since most of the station areas in the TOD study include El Camino Real, this study and the Grand Boulevard effort will share data and work closely to maintain consistency in their recommendations and action plans.

1.3.4 El Camino Real Incentive Program (C/CAG)

The C/CAG is currently sponsoring an El Camino Real Incentive Program to encourage cities and the County to examine the El Camino Real corridor as it runs through their jurisdiction from city line to city line. The purpose of studying El Camino Real is to explore the potential for increased housing in the County and to improve upon the mobility and "sense of place" along the corridor. This effort includes conducting multiple workshops using the PLACE3S planning model with the San Mateo County Economic Development Association (SAMCEDA) and local jurisdictions to model potential land use changes and compare the results with County targets for housing and jobs. Jurisdictions participating in these workshops are eligible to receive up to \$50,000 with a 50 percent city match to complete a planning document that studies the El Camino Real. The program is expected to materialize actual construction of new housing and commercial developments, and complementary roadway, bicycle, and pedestrian improvements. Jurisdictions that participate in the planning process and complete a planning document for their entire portion of El Camino Real will then be eligible to apply to the C/CAG Transit Oriented Development Housing Incentive Program for incentive funds for high-density housing built along the El Camino Real corridor. The outcomes of the TOD Opportunity Study will help to identify action plans for new TOD development and improvements within the station areas.

1.3.5 Housing Needs Study (San Mateo County Department of Housing)

The Housing Needs Study will update the study conducted in 1998 by determining current housing needs and imbalances, and estimating future housing needs associated with projected growth in the County. Estimates of current housing needs will focus on disparities between existing household incomes and housing prices, in addition to other measures, such as overcrowding and commute patterns. Future housing needs will be estimated using projected job growth and consider the effects of retirement as well. The majority of the analysis will be conducted at a countywide level, though city-level estimates will be developed to determine geographical housing imbalances. The TOD Opportunity Study will help to identify potential opportunity sites for future housing development.

1.3.6 Access BART (BART)

The Access BART study is a strategic assessment of land use and station access improvements around BART stations in the East Bay (Alameda and Contra Costa counties). The study assesses how changes in land use and access might result in an increase in ridership and optimize the current capacity of the BART system. Since the TOD study focused on BART stations in San Mateo County, the two study teams will coordinate future assumptions about the BART system and share findings and recommendations from each study.

2.0 MARKET OVERVIEW

This chapter describes the findings of the market overview that was conducted for the station areas in May through July 2006.

TOD is capable of generating an array of public and private benefits, from increased transit ridership to increased property values to improved public health. It is the potential to leverage concentrated public investment in transit that distinguishes land near transit from other areas. Leveraging this relationship to produce the greatest overall benefit can be described as TOD performance. A "high-performance TOD" is one that maximizes the inherent potential of the relationship between public investment in transit and private development. In other words, concentrated public investment creates the opportunity, but it is the market that will build to this opportunity. In order to best manage the public and private benefits brought by this process, it is essential to understand the dimensions of the market response and the development context. This chapter provides an overview of the long- and short-term market conditions that characterize the development context. When assessing market potential, the following TOD fundamentals should be considered.

Value Capture

Typically, development feasibility is determined on a site basis. The highest and best use is usually the project that generates the greatest return to its investors. In addition, TOD projects must maximize the value of their relationship to public investment in transit. Thus, the highest and best TOD use must also account for benefits accrued beyond the property line. Just as the benefits of TOD are not likely to be limited at the site level, nor are they limited to the station area. Benefits such as improved air quality and enhanced utilization of the entire transit system are shared throughout the region. Therefore, careful planning must seek out these returns.

Node-Place Balance

A transit station generates activity and is a desirable "place" in which to live, open a shop or locate a workplace. At the same time, it is a "node" in a regional transit network, and part of a metropolitan economy composed of employment centers and residential areas. Design issues abound because of this node-place tension between a station's role as an access point and its role as safe, pleasant and private place to live - including the station footprint and the location of parking and bus drop-off. Understanding the station's role in the transit system is a key to planning TOD. One goal is to balance the peak hour nature of transit use by incorporating a mix of non-work uses.

Project Timing and Business Cycles

Business cycles are a fundamental piece of the development context. Traditional building cycles last around five years and tend to be distinct among the different land uses. As a result, the development program that is expected to deliver the best financial return changes with the market outlook. A station area development program must achieve the long-range goals of TOD and perform well across many market cycles. Therefore, development may need to occur incrementally, leveraging market forces in adjusting to appropriate mix and intensity of uses for

the station area. The market overview in the following section provides a snapshot of the market outlook today, but also attempts to characterize the fundamentals that will drive high-quality development near the transit stations. For example, while the office market today is making somewhat ambiguous recovery, evidence suggests that regardless of the short-term changes in demand for office space, the County's growth will be driven by employment sectors that generally prefer to locate near transit. These TOD demand projections help to explain that while demand for housing may be strong, some stations areas may perform better as employment centers in the long-term.

2.1 Residential Development

2.1.1 National Context

Continually low interest rates and a strengthening labor market nationally have contributed toward sustaining the nationwide residential building boom over the last year. However, housing production has begun to exceed sales (total completions were at their third highest level in the first quarter of 2006), leading to a concern over excess inventory in the coming year. Many industry experts suggest that areas that have experienced extreme home sales price appreciation in recent years will be particularly at risk. Sales of both new and existing homes declined in the first quarter of 2006. Even with these declines, however, new homes sales were at the 10th highest quarterly value and existing home sales were at the seventh highest level in 45 years. Prices were somewhat mixed as illustrated in Figure 2-1. The inventory of new homes available for sale at the end of the first quarter of 2006 increased 24 percent from a year earlier, setting a new record, and the inventory of existing homes available for sale increased nearly 40 percent from a year earlier. Builders, who were less optimistic in the first quarter, showed their concern across current sales expectations, future sales expectations, and prospective buyer traffic.



Figure 2-1: House Price Index

Source: Office of Federal Housing Enterprise Oversight (OFHEO).

2.1.2 Regional Context

Slowing sales have been seen locally as well. Bay Area home sales dropped to their lowest level in five years and prices are said to have "peaked." The median price paid for a Bay Area home rose to a record \$628,000 in April 2006, up 1.0 percent from March's \$622,000, and up 7.2 percent from \$586,000 for April a year ago. However, this also represents the lowest year-over-year increase since August 2003 when the \$447,000 median was also up 7.2 percent (See Table 2-1). Adjusted for inflation, these prices represent mortgage payments that are 20 percent higher than they were at the peak of the prior cycle sixteen years ago. Still, the market is characterized as stable.

All Homes	No Sold April 05	No Sold April 06	% Change	Median April 05	Median April 06	% Change
Alameda	2,244	1,694	-24.5%	\$552K	\$589K	6.7%
Contra Costa	2,119	1,588	-25.1%	\$530K	\$570K	7.5%
Marin	481	321	-33.3%	\$779K	\$844K	8.3%
Napa	205	125	-39.0%	\$574K	\$609K	6.1%
San Francisco	681	497	-27.0%	\$751K	\$778K	3.6%
San Mateo	850	631	-25.8%	\$731K	\$750K	2.6%
Santa Clara	2,830	2,255	-20.3%	\$619K	\$661K	6.8%
Solano	1,037	667	-35.7%	\$409K	\$477K	16.6%
Sonoma	711	580	-18.4%	\$534K	\$566K	6.0%
Bay Area	11,158	8,358	-25.1%	\$586K	\$628K	7.2%

Table 2-1: Home sales in the Bay Area by County, April 2005 to April 2006

Source: DataQuick Information System, 2006.

2.1.3 Local Context

Figure 2-2 tracks the relative change in the sale prices of single-family homes. In instances where the index is negative, this indicates declining home values. Where positive, it reflects the percent increase in sales prices over the previous quarter. The graph in Figure2- 2 shows that that for the first time home price increases in California are regularly outpacing that of the combined San Francisco-San Mateo-Redwood City submarket (See Figure2- 2). The median home price in San Mateo County has also shown the most modest increase of the nine Bay Area Counties since 2005 (See Table 2-1).

Slightly more than one-fifth of all households in San Mateo County live near transit as summarized in Table 2-2. Single households are the most likely to live near transit, while married couple family households are the least likely, overall. A significantly greater share of all households under 35 years of age are likely to live near transit compared with their older counterparts. Among married couple family households, for example, only 15 percent in the 35-to 64-year age group live near transit, while this is true for 23 percent of households under 35.





Source: Strategic Economics, collected from participating cities, 2006.

Table 2-2: Employmen	t Characteristics of San 1	Mateo County Residents
----------------------	----------------------------	------------------------

Cities/Towns Where San Mateo County Residents are					
Employed	200)3	2002		
	Count	Share	Count	Share	
San Francisco, CA	47,288	18%	49,262	18%	
Unincorporated Areas of San Mateo County	17,397	7%	17,293	6%	
San Mateo, CA	15,786	6%	16,606	6%	
South San Francisco, CA	14,449	6%	13,799	5%	
Burlingame, CA	13,330	5%	15,054	6%	
All Other Locations	149,347	58%	157,875	59%	
Counties Where San Mateo County Residents are					
Employed	2003	3	2002	2	
	Count	Share	Count	Share	
San Mateo County	101,807	40%	107,959	40%	
San Francisco County	47,288	18%	49,262	18%	
Santa Clara County	41,966	16%	45,355	17%	
Alameda County	19,412	8%	19,994	7%	
Los Angeles County	11,900	5%	12,353	5%	
All Other Locations	35.224	14%	34.963	13%	

Source: U.S. Census 2000, Strategic Economics, 2006.

The economies of San Mateo, San Francisco and Santa Clara Counties are necessarily interdependent. Thirty-five percent of residents who live in San Mateo County work in either San Francisco or Santa Clara Counties. Workers commute to San Mateo County from virtually all over the Bay Area (San Mateo retailers, discussed later in this chapter, are supported by shoppers from outside of the County.)

San Mateo County's station areas are important locations of the County's interdependent relationship with San Francisco and Santa Clara Counties. As nodes of a regional transit system, these centers provide intensified access between the three counties. Table 2-3 compares the characteristics of existing and planned station areas among San Francisco, San Mateo and Santa Clara Counties. San Mateo County's stations currently hold a more residential role within the region. San Mateo County stations are also fewer and primarily based on a heavy-rail technology. Auto-ownership is lowest in dense San Francisco station areas, and highest among the least dense Santa Clara County station areas.

Demographic/Geographic Characteristics	San Francisco	San Mateo	Santa Clara
Number of Jobs Per Acre	58.9	15.3	2.4
Number of Households Per Acre	66.6	13.2	10.8
Distance to Nearest Employment Center (miles)	3.2	1.8	2.7
Number of Vehicles Per Household	1.1	1.6	1.8
Residential Acres	3,777	3,908	15,766
Employment Acres	10,226	7,565	293,814
Total Households	170,588	45,438	132,348
Acres	12,926	9,718	38,624
Median Age	37.2	36.9	32.1
0-17 years (% of Total Population)	14%	19%	23%
18-24 years (% of Total Population)	10%	8%	11%
25-34 years (% of Total Population)	24%	20%	11%
35-54 years (% of Total Population)	31%	30%	29%
55-64 years (% of Total Population)	8%	8%	7%
65+ years (% of Total Population)	14%	15%	9%

Table 2-3:	Station	Area	Characteristics
------------	---------	------	-----------------

Source: ABAG, 2003; Center for Transit-Oriented Development, CTOD and Strategic Economics, 2006.

2.1.4 TOD Demand Analysis

In July 2005, Strategic Economics as a partner in the Center for Transit-Oriented Development (CTOD) prepared an estimate of future demand for housing near transit in San Mateo County. The study looked at all existing rail stations in San Mateo County and a planned station in Menlo Park for the Dumbarton Rail Corridor project. The estimate is based on expected household formation rates among households that presently exhibit a preference for locating near transit. The assumptions used in this model were based on a national review of literature surrounding the TOD household characteristics and observed behavior among households located near transit today.

Among the households expected to drive demand for housing near transit are those headed by persons 65 years of age and older. In San Mateo County, the total number of households under the age of 65 is expected to decline, while the number of households in the 65 and older age category will more than double. Because the CTOD's research found that transit areas capture a third of all single households in the 65 and older category, the significant growth among this age group creates a strong additional demand for housing near transit throughout the County. In total, this estimate expects that an additional 13,400 households would seek out homes within in ½ mile of San Mateo County's transit areas between now and 2030. This estimate corresponds with the ABAG's 2003 projections for an additional 15,200 households located within ½ mile of transit by 2030.

Table 2-4 compares household demand for TOD across different types of households in the year 2030. The capture rate is the share of San Mateo County households that currently live near transit. The capture rates are broken out by household type and age group, and are applied to projected household growth in 2030 to derive the total potential demand for TOD. Capture rates for heads of households 65 years or older have been adjusted upwards to reflect an anticipated increase in preference for living near transit.

	Total	Total		Households	Households
Household Type /	Households	Households	Capture	Living Near	with TOD
Head of Household Age	2000	2030	Rate	Transit 2000	Demand 2030
Non family, live alone					
15 to 34 years	10,495	9,128	36%	3,781	3,288
35 to 64 years	30,875	28,805	27%	8,432	7,867
65 years and over	21,256	47,271	33%	6,468	15,823
Non-family, not alone					
15 to 34 years	9,090	7,906	30%	2,708	2,355
35 to 64 years	9,317	8,692	22%	2,037	1,900
65 years and over	1,821	4,050	27%	418	1,075
Married couple family House	holds				
15 to 34 years	22,512	19,579	23%	5,245	4,562
35 to 64 years	89,348	83,356	15%	13,618	12,705
65 years and over	22,879	50,880	18%	3,710	9,076
Other Family Households					
15 to 34 years	7,485	6,510	26%	1,955	1,700
35 to 64 years	23,010	21,467	22%	4,979	4,645
65 years and over	6,015	13,377	25%	1,291	3,362
TOTAL	254,103	301,020	23%	54,642	68,357
Share of County households no	22%	Sr	nart Growth Vision	87,384	
Projections 2003 househo	olds near transit	2.3%		Projections 2003	69.829

Table 2-4: Households with a Potential Demand for TOD in San	n Mateo Co	unty, Year 2030
--	------------	-----------------

Source: ABAG, 2003, CTOD and Strategic Economics, 2006.

The TOD demand estimate expects that the population that has already evidenced a desire to live near transit will increase. Interviews with San Mateo County brokers corroborate this story, reporting a growing interest among prospective buyers in transit proximity and a strong demand for the kind of denser housing likely to be found at transit stations – condominiums and

townhomes. In certain cities, like San Mateo and Daly City, demand is driven by a younger demographic which is made up of single professionals, young married couples without kids, first-time homebuyers and airline employees who prefer the lower maintenance of smaller properties. In other areas, such as Burlingame, brokers report older households are leading a shift in demand from single-family homes to infill locations with more amenities. Brokers ultimately listed San Mateo, Redwood City, Burlingame, San Carlos, Belmont, Millbrae and Daly City as ideal locations for a denser, transit-station-oriented housing product.

The strongest transit ridership gains are generally derived from intensification of residential uses near transit. Traditional employment centers such as San Francisco are already dense, leaving opportunity for intensification on the residential end of the worker's journey to work. These homes are populated by workers who typically travel to dense employment centers located near transit. In the case of the BART and Caltrain systems, San Francisco is the employment center that draws the most commuters. However, 40 percent of San Mateo's population travels to jobs that are within the County and is less likely to take advantage of transit.

2.1.5 Housing Affordability

In the past five years, virtually all of the new home starts in San Mateo County have been in multifamily infill properties. An estimated 3,869 units have been constructed since 2000 and, increasingly, many of those projects have been located in close proximity to transit. Of the sixtytwo residential and mixed-use residential projects in San Mateo County currently in the planning phases, the great majorities are proposed within walking distance of the Caltrain or BART stations (See Figures 2-2 and 2-3). Table 2-5 summarizes rent for apartments in the proximity of the San Mateo County stations. Rents for apartments within the walking distance of San Mateo County stations range from \$1,000 to \$3,340, while the range for outside of the station areas in San Mateo County is \$1,105 to \$2,275. To the extent that a rent premium may exist, it is expected that this premium will only increase as the regional transit system upgrades and expands, gasoline prices rise, and the demographic shifts described above intensify the demand for housing near transit. It is, therefore, especially important to create mechanisms for maintaining housing affordability for renters and homeowners in the station areas particularly if lower income renters can benefit from being located near transit.





Note: "Proposed" projects are those which are in all phases of development prior to receiving planning department approval, from project conceptualization to permit application. "Permitted" projects have received development entitlements. Project data represented above represents the most accurate and up-to-date information that was made available by the participating cities. The size of project markers on the map represents the relative scale of projects (in terms of estimated dwelling units.

Source: Strategic Economics, 2006.

Chapter 2

		Monthly rent		
Community Name	Square Footage	(per sf)	City	Proximity to Transit
Chesapeake Point Apartments	650 to 1,094	\$1.82 to \$2.86	San Mateo	1.5 miles
Jefferson at Bay Meadows	650 to 1,177	\$2.11 to \$2.84	San Mateo	0.75 miles
Avalon Daly City	442 to 972	\$1.67 to \$2.35	Daly City	2.0 miles
Avalon Foster City	562 to 912	\$1.76 to \$2.35	Foster City	1.5 miles
La Terrazza	693 to 1,229	\$2.26 to \$2.52	Uninc. SM Co.	0.4 miles
Metropolitan Apartments	838 to 1,425	\$2.23 to \$2.51	San Mateo	0.5 miles
Archstone San Bruno	568 to 1,247	\$2.13 to \$3.08	San Bruno	1.2 miles
Skyline Terrace Apartments	250 to 2,400	\$1.20 to \$4.00	Burlingame	2.8 miles

Table 2-5: Rent Comparables in San Mateo County Station Areas

Source: Strategic Economics, 2006.

Building affordable housing in station areas would help the County address its pressing shortage of affordable housing. San Mateo County projects that housing production would fall approximately 25,000 units short of meeting demand by 2010, particularly for units affordable to low-income households, assuming historical rates of production.² According to the San Mateo County General Plan Housing Element, most of the housing deficit is in rental housing for households earning less than \$75,000 as of 2005. Even if all housing units allowed in cities' General Plans were produced, the County would still under-supply more than 15,000 housing units by 2010. In this scenario, there would be a particularly large gap for households earning less than \$52,134, as well as a smaller deficit for units targeted to households earning more than approximately \$149,000.³

The challenge of providing affordable housing, while an issue throughout the Bay Area, presents important and distinct opportunities around station areas. First, there will likely be significant demand for housing near transit from higher income households in the region. If this demand can be leveraged to also support lower income housing, then fewer public dollars may be necessary to help address the affordable housing need assume that lower income hours holds depend on transit. Mixed income projects where higher priced units help to subsidize lower cost units is increasing becoming an important mechanism for providing some amount of low-income housing, and this can be deployed in any development, regardless of its proximity to transit.

Second, proximity to transit benefits the low-income households. Recent research conducted by Strategic Economics in partnership with the Center for Transit-Oriented Development finds that low-income households pay a disproportionate share of their income on transportation. In San Mateo County, low-income residents spend nearly twice as much of their income on transportation expenses as the median income household as shown in Table 2-6. If those low-income households that are currently paying high transportation costs could move closer to transit, their cost savings could be invested in other assets, including housing. Thus, by making low-cost housing available near transit, low-income households have a greater ability to afford their housing costs, if they are not overburdened with transportation costs. If affordable housing is not considered a crucial element of TOD, then every affordable housing dollar spent on units

² San Mateo County General Plan Housing Element, 2003.

³ San Mateo County General Plan Housing Element, 2003.
that are not near transit is actually creating a greater cost burden overall to the household that the housing subsidy is intended to assist in the first place.

Income Level	Avg. Annual Expenditure on Transportation	Avg. Annual Expenditure Estimate	Estimated % of Income Spent on Transportation
50% of Median Income Level	\$776	\$45,250	20.6%
80% of Median Income Level	\$858	\$72,400	14.2%
100% of Median Income Level	\$888	\$90,500	11.8%
120% of Median Income Level	\$909	\$108,600	10.0%

Table 2-6: Estimated Transportation Expenditures as a Percent of Income

Source: Center for Transit-Oriented Development and Strategic Economics, 2006.

2.2 Office Development

Modeling by the ABAG predicts that San Mateo County will add more than 130,000 jobs by 2030.⁴ In 2005, Strategic Economics co-authored a study with the CTOD quantifying the percentage of employment growth that will seek locations near transit stations in the Bay Area. Given the sectors in which growth is expected, and given the different levels of preference for locating near transit exhibited by various business sectors, Strategic Economics estimates there will be demand for an additional 64,730 employees at San Mateo County transit stations by 2030. Eighty-three percent (or 54,020) of these new jobs will be in the office-based employment sectors of Finance, Insurance and Real Estate, and Services, which includes everything from business to legal to social services.⁵

The average office building in San Mateo County has a gross employment density of one employee per 451 square feet.⁶ Based on this figure, and assuming densities remain constant through 2030, an additional demand for 24.4 million square feet of gross office space near San Mateo County transit stations is expected by 2030. That would be roughly one million square feet of new office development per year. While some new transit-area office development is underway, for example the third stage of Pacific Plaza adjacent to the Daly City BART station, the coming demand for office space near transit presents a significant opportunity in some locations.

2.2.1 Short-Term Market Conditions (3 - years)

Conditions may not yet be ideal for new office construction at each station. Though the San Mateo County office market continues to rebound from the dot-com crash, recovery has slowed a bit in the first quarter of 2006, and there is still a large inventory of vacant Class A and Class B space in many parts of the County. While average rents are finally starting to rise, vacant space still totals approximately 6.1 million square feet – 19.6 percent of all office space.

⁴ Center for Transit-Oriented Development and Strategic Economics, Transit-Oriented Development Demand Analysis, 2005. http://www.mtc.ca.gov/planning/smart_growth/tod/deliverables/4d.pdf.

⁵ Transit-Oriented Development Demand Analysis, 2005.

⁶ Building Owners and Managers Association International, 2004 Experience Exchange Report, 2004.

The highest rent markets (e.g. Menlo Park, Foster City) may offer sufficient returns to support new development in select settings in the coming year or two. Surging demand for biotechrelated office space in the north County (e.g. South San Francisco) is supporting some built-tosuit development. However, 2007 and 2008 may be more appropriate years for timing new development in other cities, especially if rents continue to recover, as many indicators predict.

To present a more detailed picture of the short-term outlook for the office market (i.e. less than 3 years), this section examines the market from the national level down to the sub-county scale.

2.2.2 National Context

The U.S. office market continues to recover steadily from the recession of 2001-2003. The national vacancy rate dropped to 14.5 percent in 2005, its lowest level in 4 years, driven by strong net absorption. Asking rates for Class A space were up from the previous year, particularly in suburban markets (4.1 percent). Fifty-five million square feet of new office space was under construction by the end of 2006 – 15 million more than at the beginning of 2005.⁷

It is not yet clear whether the national recovery will be cut short, or lead to a sustained period of expansion involving significant new construction. On the one hand, Colliers International reports that business confidence in future economic conditions is on the rise, leading businesses to have greater comfort with signing new office leases. Corporate profits have been strong. Furthermore, the global economy is extremely robust, with 2005's growth rate of 4.8 percent marking the third consecutive year at or near 5.0 percent. The International Monetary Fund (IMF) predicts 4.9 percent growth in 2006. According to Colliers International, these factors bode well for the U.S. office market.⁸

However, U.S. job growth – a fundamental driver of office demand – has been lukewarm recently. Just 75,000 jobs were added in June 2006, down from 175,000 in March and 126,000 in April, according to the U.S. Bureau of Labor Statistics.⁹ This may indicate the economy is beginning to decelerate.

Nonetheless, while there is evidence that overall job growth may be slowing, sectors that create demand for office space are projected to show big gains in the coming year. According to John Challenger, writing for the California Job Journal, 2006 will see large job gains in technology, health care, financial services and international business sectors.¹⁰ These sectors can be expected to support demand for office space near transit in San Mateo County, according to research by Strategic Economics and the CTOD cited above.

Key indicators to watch are whether the Federal Reserve continues to raise the federal funds interest rate in response to inflationary pressures – a sign of economic growth – and the direction

¹⁰ Challenger, John, "Encouraging Job Outlook for 2006," California Job Journal; http://jobjournal.com/article_full_text.asp?artid=1592.

⁷ Grubb & Ellis, North American Office Market, 2005.

⁸ Colliers International, http://www.colliers.com/Markets/USA/News/Q106Office (accessed May 21, 2006)

⁹ USA Today, "Job Growth Slows to a Crawl; may give Fed cause for a pause," June 2, 2006.

of the national housing market. If the housing market collapses dramatically (rather than just slowing down), it could hurt the overall economy and in turn affect the office market.

2.2.3 Bay Area Office Market

Despite limited overall job growth in the San Francisco Bay Area, the regional office market continued to rebound in 2005 from the dot-com crash five years ago, mirroring national trends. The Bay Area saw a 3.2 percent drop in vacancy in 2005, landing at 13.7 percent.¹¹ Rents rose significantly, up an average of seven percent to \$2.23 per square foot.¹² Tightening supply appears to have driven the uptick in rents, particularly for Class A space.¹³

As with the national office market, limited job growth makes some analysts question whether the Bay Area recovery will continue into 2007. According to Paul Levy at the Center for the Continuing Study of the California Economy, employment growth has not been nearly as robust as the revenue and profit picture would suggest.¹⁴ Companies are boosting profits without hiring more employees by getting more output per worker.

On the other hand, national growth in technology, financial services and international business particularly bodes well for the office market near Bay Area transit, even if other sectors are more sluggish. In addition, the concentration of venture capital spending in the Bay Area – still the top region in the U.S. for investment capital – as well as local intellectual property and a highly educated workforce are likely to provide ongoing sustenance for new technology, new companies, and new job growth in office-demanding businesses.¹⁵

2.2.4 Local Context

Figure 2-4 summarizes historical trends in vacancy and asking rates for office properties in San Mateo County. Year 2005 marked the second consecutive year of recovery for the San Mateo County office market. San Mateo County saw record net absorption, boisterous leasing activity, significantly less vacancy and, for the first time in five years, an uptick in rents.¹⁶

¹¹ NAI BT Commercial, Bay Area Office Report, Q1-2006.

¹² NAI BT Commercial, Bay Area Office Report, Q1-2006.

¹³ Grubb & Ellis, San Francisco Bay Area: Office, 2006.

¹⁴ San Francisco Chronicle, "Chron 200," May 05, 2006.

¹⁵ Grubb & Ellis, San Francisco Bay Area: Office, 2006.

¹⁶ Grubb & Ellis, San Francisco Bay Area: Office, 2006; NAI BT Commercial, Bay Area Office Report, Q1-2006.





Source: NAI BT Commercial – San Mateo County Office Report, 1Q 2006.

The County's decline in vacancy was one of the strongest of any market in the Bay Area. However, as presented in Table 2-7, it retains a significant amount of excess space and the highest vacancy rate in the region.

	San Mateo	San Francisco	San Jose/	Oakland/
	County		Silicon Valley	East Bay
Vacant Space (sq ft)	6,145,924	9,863,082	8,524,648	4,506,488
Vacancy Rate	19.6%	12.0%	12.8%	14.7%
Net absorption (sq ft)	-382,431	374,021	-63,984	-105,384
Under Construction (sq ft)	0	60,000	0	78,750
Rental Rates (per sq ft)	2.14	2.63	2.16	1.93

Table 2-7: Sub-Regional Office Market Comparisons in the Bay Area (First Quarter 2006)

Source: NAI BT Commercial, Bay Area Office Report, Q1-2006.

There is a consensus among county brokerages that the rebound in 2006 will continue, if not more gradually. Most brokerages expect rents in particular to increase. Oracle's acquisition of Siebel Systems, and subsequent placement of 783,000 square feet of Class A space on the market, slowed recovery for the first quarter of 2006. The quarter ended with vacancy at 19.6 percent, slightly up from 2005. However, asking rents were also up three basis points, and excluding the

Siebel space, the County would have seen a continued drop in vacancy and significant, positive net absorption.¹⁷

Biotechnology, software, internet and interactive gaming companies are among the key drivers of the County's office market.¹⁸ Biotechnology is included in "office market" in this report; however, it has unique needs as an industry that requires a combination of office, laboratory and manufacturing space. The biotechnology cluster that has developed in the northern part of San Mateo County, centered in South San Francisco, started with Genentech in 1976 and has grown into the largest biotechnology cluster in the United States. Large companies, such as Genentech and Amgen, will continue to influence the growth of the industry in the Bay Area from the spin-off of start-up companies to their influence on the physical environment through the master planning and development of large campuses. The presence of world-class research institutions and venture capital resources in the Bay Area will help this industry to continue to grow in this region.

Key biotech office leases in 2005 included Genentech (South San Francisco), as well as Gilead and Applied Biosystems (Foster City), and numerous small companies in Redwood City and the southern part of the County.¹⁹ Key software and interactive gaming leases included Genesys (Daly City, adjacent to Daly City BART) and Computer Associates (47,000 square feet in South San Francisco). Key gaming examples include Electronic Arts (headquartered in Redwood City) and Sony Playstation (Foster City).²⁰

Biotech is behind almost all new construction in the County, primarily in South San Francisco. For example, Slough Estates is constructing 785,000 square feet of Research &Development (R&D) / Office space at 599 East Grand Avenue. An additional 185,000 square feet of office space is being built for Genentech at 681 Gateway Boulevard. Otherwise, construction has been limited in San Mateo County since 2002. Table 2-8 summarizes new office space under construction in 2006. It is significant that the new construction project shown below in San Carlos is being built at less-than-market construction costs, with the help of public assistance.²¹ According to Garrett Hooker at CB Richard Ellis, the market is generally not yet supporting lease rates necessary to cover new construction costs. New construction will require rents of about \$4.00 per square foot (full service) according to Hooker, but leases in the County rarely exceed \$3.25 per square foot, except in high-end rent locations in Menlo Park.

¹⁷ NAI BT Commercial, San Mateo County Office Report, Q1-2006.

¹⁸ S.F. Examiner, "Office Vacancies Continue to Drop," 4/24/2006.

¹⁹ Cushman & Wakefield, Marketbeat Snapshot: Office Overview – San Francisco Peninsula, California, First Quarter 2006.

²⁰ Cushman & Wakefield, Marketbeat Snapshot: Office Overview – San Francisco Peninsula, California, First Quarter 2006.

²¹ Interview with Garrett Hooker, associate, CB Richard Ellis, June 2006.

City	Address	Name	Sq ft.	Details
South San	599 East Grand	Britannia East Grand	785,000	Office/R&D. Will also have
Francisco	Ave			childcare (8000 sq ft.), fitness
				center (5000 sq ft.), and
				residential/retail (8,000 sq ft.)
South San	285 E. Grand	285 East Grand	61,770	Office/R&D. 2.89 acre site
Francisco	Ave			
South San	681 Gateway	Part of Gateway	121,098	8.2 acre site
Francisco	Blvd	Redevelopment Area		
South San	1130 Veterans	Britannia Oyster Pt -	96,500	
Francisco	Blvd	Bay West Cove		
San Carlos	985 Industrial		33,000	Constructed at below normal
	Ave			costs with city assistance

 Table 2-8: New Office Space Under Construction in 2006

Source: Cities of South San Francisco and San Carlos, June 2006

2.2.5 Comparing Sub-Markets

Software, internet and interactive gaming firms drive the submarkets in Central County (San Mateo, Foster City and Redwood Shores) and South County (Belmont, San Carlos, Redwood City and Menlo Park). Generally, South County saw the greatest net absorption of vacant office space, the largest drop in vacancy, and the highest average rents in 2005. Nonetheless, it retains the highest vacancy rate in the County (approximately 24.6 percent).²² Central County had the second highest average rents in 2005, but recorded the highest rents in the first quarter of 2006.²³

Despite limited construction in the past three years, over 11 million square feet of office development is either in the proposal stage or as entitled projects. As with new construction, North County is the setting for the vast majority of proposed and entitled office development (See Figures 2-6 and 2-7). Notable examples outside South San Francisco include Pacific Plaza, which is expected to add another 270,000 square feet of office space adjacent to the Daly City BART Station in 2006, and Sierra Point in Brisbane, where plans for nearly 1 million additional square feet of flex space/office and traditional office are making their way through the approvals process.

Menlo Park is also seeing some new proposals enter the pipeline, which makes sense given that existing office space in the city is commanding high rents over \$4.00 per square foot.

It is significant that more than 4 million square feet of office space is entitled but not yet under construction in San Mateo County. This may indicate that developers are holding back until market conditions improve.

Table 2-9 on page 35 summarizes office building base, vacant space, vacancy rates and average rental rates by city. All cities in San Mateo County saw drops in vacancy between First Quarter of 2005 and First Quarter of 2006, except the City of San Mateo, where the Siebel space was vacated.

²² NAI BT Commercial, San Mateo County Office Report, Q1-2006.

²³ NAI BT Commercial, San Mateo County Office Report, Q1-2006.

Only the Cities of Brisbane and San Mateo saw increases in vacancy during the first quarter of 2006 that were greater than the last quarter of 2005.²⁴

Location	Building	Vacant	Vacancy	Vacancy	Average
	Base (sq ft)	Space (sq ft)	(Q1-2006)	(Q1-2005)	Rental Rates
					Per sq ft
Foster City	2,826,232	510,518	18.1%	23.1%	\$2.62
Menlo Park	3,395,794	564,123	16.6%	27.3%	\$2.28
South San Francisco	1,912,293	265,810	13.9%	24.1%	\$2.24
Brisbane	754,965	128,051	17.0%	21.9%	\$2.18
Daly City	868,224	51,429	5.9%	13.0%	\$2.17
San Mateo County	31,280,251	6,145,924	19.6%	36.6%	\$2.14
Redwood Shores	5,645,621	876,359	15.5%	20.7%	\$2.13
Redwood City	4,269,763	1,203,392	28.2%	44.5%	\$2.09
San Mateo	6,755,436	1,571,428	23.3%	16.3%	\$2.08
Belmont/San Carlos	1,303,501	442,595	34.0%	35.3%	\$2.05
San Bruno/Millbrae	1,441,673	242,272	16.8%	25.5%	\$1.87
Burlingame	2,106,749	289,947	13.8%	19.2%	\$1.74

Table 2-9: Comparing Office Markets by City, First Quarter of 2006

Source: NAI BT Commercial, San Mateo County Office Report, First Quarter 2006.

Biotechnology

Biotechnology is clustering in the northern part of the County, particularly South San Francisco, helping make vacancy rates in the North County submarket (which includes Brisbane, Daly City, South San Francisco, San Bruno, Millbrae and Burlingame) the lowest in the County. This trend is expected to grow with synergy created by the cluster of biotechnology companies, start-ups, research institutions, venture capital sources, and the passage of the California Stem Cell Research and Cures Initiative in 2005. Large biotechnology companies in South San Francisco, including Genentech and Amgen, occupy over 4 million square feet of laboratory, office and manufacturing spaces. Rental rates in the North County submarket remain the lowest in the County.

²⁴ NAI BT Commercial, San Mateo County Office Report, Q1-2006.





Note: "Proposed" projects are those which are in all phases of development prior to receiving planning department approval, from project conceptualization to permit application. "Permitted" projects have received development entitlements. Project data represented above represents the most accurate and up-to-date information that was made available by the participating cities.

Source: Strategic Economics, 2006.



Figure 2-6: Office Development by City: Proposed, Permitted and Under Construction

Source: Strategic Economics, collected from participating cities, 2006.

Demand for Office Space at San Mateo County Transit Stations

Over time, more and more companies are expected to focus on transit access for employees in the Bay Area, as congestion and gas prices rise. In San Mateo County, this is already a trend, as companies and cities invest in free shuttles from BART and Caltrain stations to office parks like Sierra Point and Sea Breeze that are hard to reach on foot. While these shuttles point to ways in which less accessible office parks will compete with office buildings in transit areas, they are also evidence of office employee preference for transit commuting in the County. Given the unappealing nature of transferring to a second form of transit for the work commute, regardless of its cost, transit station office buildings are expected to have growing appeal.

Nationally, more companies are locating offices at transit stations, according to the Urban Land Institute.²⁵ For example in Atlanta, BellSouth Corporation has consolidated all its suburban offices into three central locations accessible by the city's rail system, in response to the area's growing traffic problems. This trend is expected to accelerate in high-congestion areas where transit is reliable.

Although high-tech employers in San Mateo County do not yet show a high preference for locating near transit, business services employers do. Their predicted growth, discussed above, will help drive additional demand for office space near the County's transit stations. Presently, 71

²⁵ Urban Land Institute, Ten Principles for Successful Development Around Transit, 2003.

percent of service sector employment is located near transit in San Mateo County.²⁶ This figure is expected to increase to 77 percent by 2030.²⁷

At the same time, high tech employers that have historically located in flex/light-industrial space are showing a growing preference for mid- and high-rise office space in amenity-rich environments.²⁸ This could lead to a growing willingness to locate in transit station areas that offer interesting entertainment and retail options within close proximity.

2.2.6 Keys to Competitiveness for Transit Area Office Development

To compete with other office parks in the County, station areas that can attract new office development will offer the following:

- A diversity of floor plates, including smaller spaces (3,000 to 5,000 square feet);
- Close proximity of key employee amenities;
- A critical mass of office space;
- Regional workforce access;
- Class A space; and
- Distinct personality.

A diversity of floor plates, including smaller spaces (3,000 - 5,000 square feet). Presently smaller users are making up most of the demand for existing office space in the County.²⁹ Newly constructed but vacant office space tends to be large-floor plate. For example, Parkside Towers on East Hillsdale in Foster City has 300,000 square feet of vacancy, most of which is made up of large floor plate configurations. Nonetheless, some brokerages are seeing strong demand from users seeking spaces in the range of 15-25,000 square feet. Making space for these larger companies is important at transit stations because these employers are often best positioned to offer incentives for use of transit.

Close proximity of key employee amenities, including convenience retail and services, lunchtime meeting places, health clubs, cafes and daycare. To make it viable for employees to travel to work by transit, new transit area office developments have to place lunchtime errands and other key destinations within walking distance of the workplace.

A critical mass of office space. Class A office tenants prefer to locate near established employment centers or parks with the potential to reach significant scale. Brokers also confirm that Class A tenants look to locate near similar tenants. For example, the presence of Genesys in Daly City has created the precedent for other high-tech tenants to locate in Daly City. In addition, a cluster of office developments provides the critical mass of leasable square footage necessary to support key

²⁶ Strategic Economics, *Transit-Oriented Development Demand Analysis*. Prepared for the San Francisco Bay Area Metropolitan Transportation Commission, December 2004.

²⁷ Strategic Economics, *Transit-Oriented Development Demand Analysis*. Prepared for the San Francisco Bay Area Metropolitan Transportation Commission, December 2004.

²⁸ Elmer, Vicki and Strategic Economics, Fiscal Impact Analysis and Land Use Policy in California: A Case Study of the San Jose Employment Land Conversion Analysis (Forthcoming), 2006.

²⁹ CB Richard Ellis, Market View: San Francisco Peninsula Office, First Quarter 2006.

amenities, which are essential to attracting office tenants. To compete with developments such as Oyster Point or Redwood Shores (both not adjacent to transit), transit station office clusters will have to offer superior amenities within walking distance.

Regional workforce access. According to Longitudinal Employer-Household Dynamics data from the U.S. Census, San Mateo County's workforce is drawn from all over the Bay Area. Transit area locations in San Mateo County have an advantage over other office park areas in facilitating regional workforce access. Stations that offer multi-modal access, for instance the Colma BART, Millbrae BART/Caltrain, and Redwood City Caltrain stations, will have a particular advantage when it comes to attracting new office-based employers. Millbrae is particularly appealing for office development because of its easy access to San Francisco International Airport.

Class A space. "Class A" office space is distinguished from Class B and C by its high quality design and materials, modern features like express elevators, above-average upkeep and higher rents. This kind of space tends to be sought out by employment sectors like Services, which also favor transit proximity. Presently, Class A space is also the product that is moving most quickly in San Mateo County.

Distinct personality. As with residential and retail development, the most competitive transit area office development will have a memorable and easily identified "personality." This is crucial for competing with office developments that are able to achieve greater critical mass in other, less-land-locked parts of the County.

2.3 Retail Development

There are effectively two types of retail that are appropriate for transit areas: incidental and destination. Incidental or neighborhood-serving retailers are typically small-format stores providing a range of convenience goods and services to nearby residents or office workers. Such uses are important components in station areas as they contribute to the proportion of non-work trips that may be made on foot (reducing the need for a car); add to street-level activity that is essential for making a station area attractive and safe; and are instrumental in developing the identity of the station area. Unfortunately in lower and moderate density environments, such as presently exists around Caltrain stations, local demand alone is not always sufficient to support these stores as they are effectively competing with auto-oriented retailers in the area that serve a broader trade area.

The second type of retail that is appropriate for transit is destination retail. Destination retail draws from a regional trade area, and is usually a distinct and recognizable retailing center in the region. Destination retail that is most appropriate for transit typically includes an assortment of smaller-format retailers, restaurants, and entertainment uses. Stores that sell smaller items that can be carried on transit are more likely to generate transit ridership.

Figure 2-7 identifies the retail centers in the region that may be considered destination retail. Generally, San Mateo County is considered a strong retail market, owed to its relatively highdensity, high-incomes, and accessibility within the region. Figure 2-8 identifies major planned, permitted or under construction retail projects. Table 2-10 presents the retail categories that are experiencing the most relative *injection*, where consumers from outside of San Mateo County are spending money within the County, and *leakage*, where San Mateo residents are spending outside of the County. This analysis suggests that the retail categories with the most supply are generally more auto-oriented in nature. Table 2-11 also points to unmet demand within the eating and drinking category and area brokers have corroborated this story. Eating and drinking establishments are ideal uses for both incidental and destination retail at TODs, as they attract significant foot traffic, can be highly visible from the street (improving perceived and real security from passive surveillance) and extend the active hours of the station.



Figure 2-7: Regional Retail Supply

Source: Strategic Economics, 2006.



Figure 2-8: Major Planned, Permitted and Under Construction Retail Projects, San Mateo County

Note: "Proposed" projects are those which are in all phases of development prior to receiving planning department approval, from project conceptualization to permit application. "Permitted" projects have received development entitlements. Project data represented above represents the most accurate and up-to-date information that was made available by the participating cities. The size of project markers on the map represents the relative scale of projects (in terms of estimated square footage). Source: Strategic Economics, 2006.

	Demand	Supply (Detail Salas)	Leakage/	
	(Consumer Expenditures)	(Retail Sales)	Injection	
Total Retail Sales (Including				
Eating and Drinking Places)	\$12,159,926,020	\$13,132,756,652	\$(972,830,632)	
Significant Injection				
Automotive Dealers	2,093,557,913	3,530,697,987	(1,437,140,074)	
Household Appliances Stores	33,182,578	57,656,959	(24,474,381)	
Computer and Software Stores	117,413,043	210,024,019	(92,610,976)	
Home Centers	412,771,220	632,310,789	(219,539,569)	
Hardware Stores	76,621,184	139,236,002	(62,614,818)	
Other Gasoline Stations	345,624,584	721,140,049	(375,515,465)	
Special Foodservices	97,575,188	280,758,004	(183,182,816)	
Significant Leakage				
Paint and Wallpaper Stores	19,099,054	2,095,993	17,003,061	
Outdoor Power Equipment Stores	17,446,799	184,001	17,262,798	
Vending Machine Operators	56,287,599	5,528,005	50,759,594	
Drinking Places – Alcoholic Beverages	110,825,123	26,792,007	84,033,116	

Table 2-10: Retail Opportunity Gap Analysis - Select Retail Categories, San Mateo County

Source: Claritas 2005, Strategic Economics, 2006.

Strategic Economics/CTOD's residential TOD demand estimate indicates that the station areas will be increasingly populated by non-family households (without kids) (See Table 2-4 and Figure 2-9). These households are expected to spend more of their disposable income on food, entertainment and specialty items, which are more compatible with the goals of retail within transit areas as described above.





Source: U.S. Census 2000, Center for Transit-Oriented Development and Strategic Economics, 2006.

Within any transit system, most stations will include some amount of local-serving retail, and only a few of these stations will support regional or destination retail. The same is true of the San Mateo County stations where new increments of destination retail are only likely to be added at stations that already include this type of retail in the current land use mix. This does not preclude the opportunity to add substantial increments of retail to existing centers and to ensure that the mix and orientation of retail is more supportive of transit. Potential station areas where destination retail may be feasible include:

- Bayshore Caltrain;
- Daly City BART;
- Colma BART;
- San Bruno BART;
- Burlingame Caltrain; and
- Redwood City Caltrain.

The body of direct research around which types of retailers are most supportive of transit is limited. However, it stands to reason that retail that depends on high-levels of foot traffic and provides relatively small and lightweight goods, or provides on-site services, are likely to be better suited for transit stations. In the last ten years, the retail industry as a whole has seen the proliferation of "entertainment retailers" which includes, but is not limited to, movie theaters, restaurants, video arcades, and nightclubs.³⁰ Retailers are also beginning to integrate "experiential" components such as listening stations in music stores and cafes and reading areas in bookstores and finding that these investments can boost sales. Such entertainment retailers are often well suited for transit, provided that the footprint of the uses is not so large as to impact the walkability of the transit area.

Ultimately, all retail depends on automobile access. This will have the effect of either limiting scale to convenience retailers which are able to depend more on foot traffic or on maximizing scale to justify the costs of providing structured parking minimizes the impact of parking on the pedestrian area.

The retail opportunity gap analysis shows that retail establishments that sell food, entertainment, and specialty items will be in high demand relative to other retail uses (See Table 2-11). This demand is directly related to the growing population of households without kids that will locate to housing near transit stations.

³⁰ Allen, John B. "Front And Center: Entertainment Is Retail's Hottest Ticket," *Shopping Center World.* June, 1997.

				Leakage/
	Demand	Supply	Leakage/	as % of
Retail Spending Category	(Consumer Exp)	(Retail Sales)	Injection	Demand
Total Petail Sales (Including Pating				
and Drinking Places)	\$12,159,926,020	\$13,132,756,652	\$(972,830,632)	-8%
Motor Vehicle and Parts Dealers	2,531,534,567	3.828.385.006	(1.296.850.439)	-51%
Furniture and Home Furnishings Stores	381,860,543	280,858,946	101,001,597	26%
Electronics and Appliance Stores	346,987,108	502,522,949	(155,535,841)	-45%
Building Material, Garden Equip Stores	1,113,618,521	1,382,421,740	(268,803,219)	-24%
Building Material and Supply Dealers	986,252,114	1,310,878,706	(324,626,592)	-33%
Home Centers	412,771,220	632,310,789	(219,539,569)	-53%
Paint and Wallpaper Stores	19,099,054	2,095,993	17,003,061	89%
Hardware Stores	76,621,184	139,236,002	(62,614,818)	-82%
Other Building Materials Dealers	477,760,656	537,235,922	(59,475,266)	-12%
Building Materials, Lumberyards	171,028,009	183,203,442	(12,175,433)	-7%
Lawn, Garden Equipment, Supplies Stores	127,366,407	71,543,034	55,823,373	3 44%
Outdoor Power Equipment Stores	17,446,799	184,001	17,262,798	99%
Nursery and Garden Centers	109,919,608	71,359,033	38,560,575	35%
Food and Beverage Stores	1,364,166,274	1,435,200,016	(71,033,742)	-5%
Grocery Stores	1,132,450,131	1,324,270,032	(191,819,901)	-17%
Supermarkets, Grocery Stores	1,084,114,664	1,285,240,993	(201,126,329)	-19%
Convenience Stores	48,335,467	39,029,039	9,306,428	3 19%
Specialty Food Stores	163,379,911	58,446,992	104,932,919	64%
Beer, Wine and Liquor Stores	68,336,232	52,482,992	15,853,240	23%
Health and Personal Care Stores	543,347,511	578,682,953	(35,335,442)	-7%
Gasoline Stations	938,928,367	1,046,076,042	(107,147,675)	-11%
Clothing and Clothing Accessories Stores	676,207,569	595,168,109	81,039,460	12%
Sporting Goods, Hobby, Book, Music Stores	270,300,624	269,375,977	924,647	7 0%
General Merchandise Stores	1,617,703,018	1,239,035,966	378,667,052	23%
Department Stores Excl Leased Depts	1,118,885,170	653,997,989	464,887,181	42%
Other General Merchandise Stores	498,817,848	585,037,977	(86,220,129)	-17%
Warehouse Clubs and Super Stores	307,090,678	382,850,996	(75,760,318)	-25%
All Other General Merchandise Stores	191,727,170	202,186,981	(10,459,811)	-5%
Miscellaneous Store Retailers	340,476,097	287,933,970	52,542,127	7 15%
Florists	41,705,729	22,088,006	19,617,723	3 47%
Office Supplies, Stationery, Gift Stores	152,328,817	166,931,979	(14,603,162)	-10%
Office Supplies and Stationery Stores	66,630,388	78,839,983	(12,209,595)	-18%
Gift, Novelty and Souvenir Stores	85,698,429	88,091,996	(2,393,567)	-3%
Used Merchandise Stores	37,844,739	28,369,970	9,474,769	25%
Other Miscellaneous Store Retailers	108,596,812	70,544,015	38,052,797	35%
Food service and Drinking Places	1,288,180,638	1,217,256,980	70,923,658	8 6%
Full-Service Restaurants	531,515,757	501,765,962	29,749,795	5 6%
Limited Service Eating Places	548,264,570	407,941,007	140,323,563	3 26%
Special Food services	97,575,188	280,758,004	(183,182,816)	-188%
Drinking Places Alcoholic Beverages	110,825,123	26,792,007	84,033,116	5 76%

Table 2-11: Retail Opportunity Gap Analysis

Source: Claritas, 2005, Strategic Economics, 2006.

3.0 EXISTING CONDITIONS

3.1 Methodology

In order to understand the existing conditions at the 18 rail station areas in San Mateo County, data and information was compiled on station characteristics, land use, ownership, planned improvements, recent construction activities, and current and future market conditions. Site visits of each station area were conducted, plans and studies affecting the station areas were reviewed, and city and county representatives were interviewed. The detailed market overview, which addresses regional and local trends in residential, office, and retail development, is presented in Chapter 2. The station area profiles for each station area can be found in Appendices A through R and provide detailed information collected on each station area.

3.1.1 Data Collection

The TOD study team collected data from SamTrans/Joint Powers Board (JPB), BART, the cities, and county, and through site surveys. SamTrans/JPB and BART provided station characteristic information, such as ridership, station access mode split, parking supply and occupancy, station facilities, and planned station improvements.

The cities provided relevant governing documents, information on local planning efforts, planned and permitted projects, recent construction activity, general community attitudes toward TOD, and constraints and opportunities related to furthering TOD in their communities. A literature review was conducted which included general plans, specific area plans, redevelopment plans, urban design guidelines, and zoning ordinances. These governing documents reveal the regulatory framework that exists at each station area and the current and future "planning context" for TOD opportunities. They are also an indicator of the interest and level of effort that has been invested in planning for and implementing TOD in each community.

The County Department of Public Works provided Geographic Information System (GIS) data for the demographics analysis and the Assessor's Office provided parcel level land use and ownership data. The study team used ABAG Projections 2005 to quantify employment and population growth within the station areas.

The TOD study team conducted site surveys on April 21 and 28, 2006 in order to assess qualitative information regarding station access, connectivity to existing activity centers, built form, land uses, and recent construction activity. During the site surveys, the study team observed:

- Degree of station visibility to and connectivity from the surrounding areas, including the relationship to El Camino Real/Mission Street and existing activity centers;
- Quality of station access (parking, passenger loading zones, transit and shuttle connections, bicycle/ pedestrian/ wheelchair accessibility);
- Urban planning context including existing land uses and densities; and
- Evidence of new construction and development within the station area.

Plans for possible new stations are being developed for the Caltrain stations at Hillsdale, San Bruno, and South San Francisco. To the extent possible, the assessment and data analysis were applied to the new proposed station locations.

3.1.2 Interviews

Interviews were conducted in person or via telephone with representatives from 12 cities and San Mateo County. Interviewees included staff from the departments of planning, community development, public works or redevelopment, and city managers. These individuals comprise the TOD Partnership Committee (TPC). The TPC members were contacted for interviews and received a list of prepared questions designed to gather information such as governing land use documents, pertinent reference materials (staff reports, development lists, etc.), current planning efforts and community perceptions about TOD, station area and land use plans, as well as need for local/regional program assistance desired by cities to support individual planning goals. The persons who were interviewed are listed in Appendix T. The questionnaire is provided in Appendix U.

The interview discussion focused on three primary areas:

- 1) Governmental policies/ordinances and community perspectives related to TOD;
- 2) Physical conditions of station areas (existing conditions and planned improvements); and
- 3) Constraints toward and opportunities for promoting TOD.

The results of the interviews were utilized by the study team to assess constraints and opportunities, which are summarized in Chapter 4 and in the Station Area Profiles. The team also interviewed developers to gain their perspectives. Details of developer interviews are presented in Section 5.5.

3.2 Findings

Existing conditions information on each station area is presented in the Station Area Profiles in Appendices A through R. General information for the station areas includes demographic characteristics, governing documents, regulatory framework and local planning efforts. The station area is divided into three zones: Zone A is the rail station, Zone B is the ¼-mile area around the station, and Zone C is the area between the ¼-mile and ½ mile radii. Existing conditions information for Zone A includes the location of the station, type of rail service provided, weekday ridership, station access, access to existing activity centers, station visibility, and planned station improvements. For Zones B and C, information on land use, ownership, planned developments, projects recently constructed and urban planning context is provided. Selected findings on demographics, land use, and ownership are presented in this chapter. The findings from the Phase II study are summarized in Chapter 6.

3.2.1 Demographics

Demographic characteristics within the station areas vary widely. Table 3-1 presents the ranges for population, average household size, owner vs. renter occupied households, median income, vehicles per household, and percentage of employed residents who drive alone for work trips.

	High	Low	San Mateo County
Population	11,639 (Daly City)	2,754 (Atherton)	699,610
Average Household Size	4.17 (Millbrae)	1.73 (Menlo Park)	2.74
% Owner Occupied	74% (Atherton)	23% (Menlo Park)	61.4%
Households			
Median Income	\$101,512 (Atherton)	\$39,878 (Millbrae)	\$64,998*
Average Vehicles per	3.0 (Colma/Millbrae)	1.4 (Broadway)	1.88
Household			
Percentage Drive Alone	90% (Belmont)	63% (Bayshore/	85.1%
for Work Trips		Daly City)	

Table 3-1: Demographic Characteristics for Station Areas in San Mateo County

Source: 2000 Census, Strategic Economics, 2006., *U. S. Census Bureau, Small Area Income & Poverty Estimates for states and counties, 2003.

3.2.2 Land Use

Land use designations used were those obtained by the C/CAG were derived from San Mateo County Assessor's data. Single-family residential uses include housing with three units or less and multi-family dwellings are those with four or more units. Parking lots or facilities associated with a commercial use are also designated as commercial uses. Biotechnology firms are included with industrial uses.

Residential uses are the most predominant land use in the station areas in Atherton, Belmont, Broadway, Daly City (San Francisco data not included), and San Carlos. Station areas with significant commercial or industrial uses are Hayward Park, Hillsdale, Redwood City, San Bruno BART, San Bruno Caltrain, and South San Francisco Caltrain station areas. The residential and combined commercial/industrial uses are about equivalent in the station areas of Burlingame, Menlo Park, Millbrae, and San Mateo. In the South San Francisco BART station area, the predominant land uses are evenly split between residential and public/institutional uses. In the Colma station area, public/institutional uses and commercial/industrial uses are fairly even. In the Bayshore station area, the predominant land uses are vacant and industrial (San Francisco data not included).

3.2.3 Ownership

Land ownership information was compiled for parcels within the station area. Publicly owned parcels were categorized by ownership by: the City or County, SamTrans/JPB, BART, or other public agencies. Stations areas with publicly-owned land that has potential for redevelopment (i.e. is vacant or underutilized) include Belmont, Colma, Millbrae, and San Carlos.

4.0 OPPORTUNITIES AND CONSTRAINTS

This chapter summarizes opportunities and constraints for all the station areas based on the study team review and assessment of existing conditions, the preliminary market overview, and interviews with members of the TOD Partnership Committee (TPC.) Constraints were grouped into five main areas and for each station area, were determined to be fixed or non-fixed constraints. In some cases, opportunities or strategies to address the constraints were identified. Opportunities in terms of market potential were also summarized for each station area.

4.1 Issues and Constraints

This section summarizes existing issues and constraints that pose a barrier to TOD in each station area. The issues and constraints are grouped into five main categories – zoning ordinances and policies, station access, station visibility and connectivity with existing activity centers, site availability or ease of assembly, and environmental issues or conditions. A solid black square (\blacksquare) indicates a constraint that is relatively fixed or difficult to change. An empty square (\square) indicates a constraint can be addressed or a condition that could be improved by the City/County. The absence of a square indicates that the station area does not face constraints in that particular category. Table 4-1 summarizes existing issues and constraints by station area.

4.2 Zoning Ordinances and Policies

Zoning ordinances and policies dictate land uses, densities, building heights, setbacks, floor-toarea ratios, open space requirements, and parking requirements. TOD-friendly policies typically encourage mixed land uses, a diversity of housing types, higher densities, taller building heights, and pedestrian-scaled site and streetscape design. Zoning ordinances and policies were identified as constraints for station areas where city policies prohibit or limit the type of development that is characteristic of TOD. In general, this is a constraint that can be addressed, although community resistance to growth and increasing density can make it difficult to implement drastic changes.

The following are general suggestions for policies and programs that encourage TOD.

- General Plans that promote the concept of vertical "layering" of mixed uses, including residential uses where appropriate, at medium to high densities.
- Zoning Ordinances that embrace mixed-uses through the establishment of primary or "overlay" mixed-use zones.
- Urban Design and Built Form Guidelines that promote (or require) streets, public spaces, and urban development to be pedestrian-friendly.
- Policies and procedures for comprehensive planning of specific projects or small areas, such as Neighborhood Plans, Transit Station Area Plans, Corridor Plans, and Planned Unit Developments (PUDs).
- Parking management policies that allow reduction of parking requirements in TOD areas and pass the capital and operational costs of parking to automobile users. This could be achieved through the establishment of a maximum on-site parking requirement and shared parking arrangements.
- Programs to develop TOD "visions" and plans (often through public workshops or "charrettes") that guide existing neighborhoods to develop TOD gradually over time.

Station Area	Zoning Ordinances and Policies	Station Access	Visibility- Connectivity with Existing Activity Centers	Site Availability or Ease of Assembly	Environmental Issues or Conditions
Atherton Caltrain					
Bayshore Caltrain					
Belmont Caltrain					
Broadway Caltrain					
Burlingame Caltrain					
Colma BART					
Daly City BART	N/A				
Hayward Park Caltrain					
Hillsdale Caltrain					
Menlo Park Caltrain					
Millbrae BART/Caltrain					
Redwood City Caltrain					
San Bruno BART					
San Bruno Caltrain					
San Carlos Caltrain					
San Mateo Caltrain					
So. San Francisco BART					
So. San Francisco Caltrain					

Table 4-1: Issues and Constraints by Station Area

Categories

■ = Constraint that is relatively fixed or difficult to change

 \Box = Constraint that could be addressed or condition that could be improved by the City/County

Constraints

Zoning Ordinances and Policies = Existing regulatory framework does not support mixed land uses, higher densities, and compact development that is characteristic of TOD.

Station Access = Access to the station is constrained by existing development, roadway configurations, transportation infrastructure, or other physical barriers in the environment.

Visibility and Connectivity with Existing Activity Centers = Station is not within an easy walking distance (less than ½ mile) of existing activity centers.

Site Availability of Ease of Assembly = Vacant or underutilized sites are not available for redevelopment or available sites are difficult to assemble due to size, shape, or ownership issues.

Environmental Issues or Conditions = Environmental issues or conditions may place limitations on new development.

- Programs that promote TOD through assisted land assembly and solicitation of proposals from private developers these strategies often include varieties of public/private joint-ventures and may include transit agencies as well as municipalities.
- Policies that encourage coordination of implementation throughout and across city and county governments and agencies, for example funding for Department of Public Works projects that provide infrastructure and public amenities near transit.

In the Town of Atherton, the zoning constraint is viewed as relatively fixed. The General Plan prohibits all commercial development and new residential development, and caps housing density at three units per acre. The high land values also make it a less feasible location for new development. With such restrictive policies in place, it is assumed that it would be extremely difficult to gain the political support amongst residents of Atherton to change the current zoning laws. In San Bruno and Millbrae, the proximity to the San Francisco International Airport limits building heights and new residential development in certain areas of these cities. These limitations are also viewed as fixed constraints and are included under Environmental Constraints.

In the cities of Redwood City and San Mateo, the existing policies have helped to advance TOD in their communities. These cities have actively engaged in planning efforts to encourage mixed uses and higher-density development within their station areas. This is evident by the recent construction of large-scale new developments within proximity of the Redwood City Caltrain station and Hillsdale Caltrain station in San Mateo that exhibit typical TOD characteristics. Burlingame, Menlo Park, Millbrae, San Bruno, San Carlos, and South San Francisco also have policies that support some-level of TOD, though they may be more conservative in terms of densities allowed or parking required for new development.

In recent years, there has also been new development within the Daly City BART, Millbrae BART/Caltrain, Menlo Park Caltrain, San Bruno BART, and South San Francisco BART station areas that exhibit many of the qualities of TOD. Belmont, Brisbane, Colma, and San Carlos have seen planning for new development within their station areas that range from small-scale to large-scale TOD projects. The recent development and planning is made possible by the cities' policies, which support some aspects of TOD, but may limit others. These limitations generally apply to building heights/densities that are too low and parking requirements that are too high. Parking requirements for new development can prohibit higher densities because of the limited land available or because of the cost to provide the required number of parking spaces.

In Phase II of this study, more detailed and city-specific recommendations for TOD-friendly policies will be developed for each of selected station areas.

4.3 Station Access

Station access can have a major impact on whether a station – and the rail service it belongs to – is utilized to its fullest potential. One significant deterrent to transit use is the increased door-to-door travel time that can be caused by searching for parking, transferring between modes, or walking long distances. The availability of parking can be a major access constraint, especially at park-and-ride stations, where vehicles are the primary mode of access by passengers who drive

alone, are dropped off, or carpool. Because providing parking facilities can be costly, due to the availability and price of land, parking management practices are essential to optimize existing parking supply and encourage more balanced station access across a variety of modes.

Encouraging pedestrian and transit access is desirable because access via these modes is not as limited by land availability. Bicycle parking requires only a small fraction of land compared to vehicle parking. The fact that these alternative modes have a much higher capacity for bringing passengers to a station is one of the primary benefits of placing TOD, instead of acres of surface parking, within a station area. Generally, access by alternative transportation modes can be encouraged by creating a safe environment that has good connections to adjacent neighborhoods and activity centers, or by providing facilities for buses and shuttles. Tradeoffs must be weighed between investing in these types of access improvements and investing in parking facilities.

The quality of station access can be affected by the surrounding street network/transportation infrastructure (discussed in "Connectivity to Existing Activity Centers"), station facilities (vehicle parking, bicycle parking, loading zones, ramps, elevators), and connecting service (rail, buses, shuttles) provided at or near the station. The stations with inadequate facilities are those that may have a shortage of vehicle/bicycle parking, may lack loading zones for transit or vehicle drop-off, or are not wheelchair accessible. These shortcomings can usually be addressed through station improvements, which vary greatly in cost depending on the extents of the improvements. Atherton, Bayshore, Broadway, Burlingame, Daly City, San Bruno Caltrain, South San Francisco Caltrain stations fall under this category. Note that plans for station improvements are being developed for the Burlingame, South San Francisco Caltrain, San Bruno Caltrain, and Hillsdale stations and would address these deficiencies.

Good connections to bus and shuttle services at stations are critical, especially at "destination" stations. Destination stations, where a majority of morning peak period passengers are arriving, tend to serve employment centers and other activity centers. When these employment or activity centers are not within a short walking distance of the station, bus and shuttle services allow passengers to complete the "last mile" of their trip, which is usually the most challenging. The following are destination stations that could benefit from improved transit/shuttle access include the Bayshore (which will have a MUNI Third Street light rail transit connection in the future), Hayward Park, and San Mateo Caltrain stations.

The following stations have multiple bus routes (SamTrans) and/or shuttle connections at the station:

- Belmont Caltrain SamTrans;
- Broadway Caltrain local shuttle;
- Burlingame Caltrain local shuttle;
- Colma BART SamTrans transit center;
- Daly City BART SamTrans transit center, MUNI;
- Hillsdale Caltrain SamTrans;
- Menlo Park Caltrain SamTrans, Valley Transit Authority (VTA);
- Millbrae BART/Caltrain SamTrans transit center;
- San Carlos Caltrain SamTrans transit center;

- San Bruno BART SamTrans transit center;
- San Mateo SamTrans transit center;
- South San Francisco BART SamTrans transit center;
- South San Francisco Caltrain local shuttle; and
- Redwood City Caltrain SamTrans transit center.

4.4 Visibility and Connectivity with Existing Activity Centers

Station visibility and connectivity with existing activity centers are qualities that are related to a station's location in the urban environment. Visibility constraints tend to be fixed, since they cannot be easily improved if a station is obscured by taller buildings or nearby transportation infrastructure, such as an overpass. Much like station access, station visibility can affect whether a station is utilized by virtue of the fact that is has a "presence" in the community. The stations with good visibility tend to have frontage on El Camino Real/Mission Blvd or other major thoroughfares. The stations that have poor visibility include: Atherton, Bayshore, Colma, Hayward Park, Hillsdale, Redwood City, San Mateo, San Bruno BART, and South San Francisco Caltrain Stations. An effective wayfinding or signage program can help address this constraint.

Connectivity with existing activity centers requires that there be a strong physical connection for people to access an adjacent "critical mass of activity" near a station. For many of the cities included in this study, there is already a business district or other activity center near the station that is a pedestrian-friendly environment ripe for future TOD opportunities. While these cities have been successful at encouraging TOD within their station areas, proximity to a station does not always result in good connectivity to the station.

In many cases, poor connectivity is due to low-density "suburban" development, which is autooriented and presents physical obstacles to pedestrians, bicyclists, and motorists. Usually, the surrounding street network is difficult and nearly impossible to change, especially since most areas are already built-out. Long blocks or large parking facilities without through-streets, streets without sidewalks, and transportation infrastructure (i.e. wide boulevards, overpasses, at-grade railroad tracks) act as barriers to accessing the station. Since modifying streets or other transportation infrastructure is typically costly, these are viewed as being relatively fixed constraints. The station areas of Atherton, Bayshore, Belmont, Colma, Daly City, Hillsdale, Hayward Park, Millbrae, San Bruno BART, and South San Francisco Caltrain have constraints that fall into this category. Improving station access with some of the strategies discussed previously would alleviate this condition. However, a long-term strategy for station areas with large parking lots or opportunity sites would be to redevelop them for other uses as long as parking capacity near the station is maintained. The development plans near the Bayshore, Hillsdale, Millbrae, and South San Francisco Caltrain stations would include adding streets or pedestrian access to improve connections from the station to the surrounding areas.

4.5 Site Availability or Ease of Assembly

Typically, larger (greater than 100,000 square feet) regularly shaped sites are more favorable for TOD, due to economies of scale. Site availability and ease of assembly depend on the current use (i.e. whether it is vacant or underutilized) and ownership (publicly owned or has a cooperative private owner who is willing to sell or redevelop). The lack of available sites or easy-to-assemble

parcels can be viewed as relatively fixed constraints, and would be difficult to change except for possibly an outreach/education/negotiation process with landowners. Dealing with private landowners has been cited as a potential issue for a few station areas, namely Bayshore and Daly City. The station areas where site availability and/or ease of assembly have been noted as constraints are: the Atherton, Broadway, Burlingame, Daly City, Menlo Park, Millbrae, Redwood City, San Mateo, and South San Francisco BART station areas. The station areas where there is site availability or ease of assembly include the Bayshore, Colma, Hayward Park, Hillsdale, and San Bruno BART station areas.

While the ability to assemble many small parcels into a larger site is desirable, it is also feasible to build TOD on smaller, scattered sites. In the Belmont, and San Bruno, San Carlos, and South San Francisco Caltrain station areas, this would be more appropriate of a TOD implementation approach due to the number of small, scattered sites that are available for redevelopment. Therefore, in these station areas, ease of assembly is viewed as a constraint that can be addressed.

4.6 Environmental Issues or Conditions

Environmental issues or conditions include known environmental contamination at opportunity sites within the station area, or other factors that may limit future development, such as the proximity to the San Francisco International Airport. Cities identified as having constraints in this category are Brisbane, Millbrae, and San Bruno.

Former uses of the western portion of the Baylands site have resulted in soil and groundwater contamination, both of which are currently under regulatory control of the Department of Toxic Substances Control. The General Plan designated it for Trade Commercial uses. While the proximity of the Baylands to the Bayshore Caltrain station, a future regional transit hub, makes it ideal for housing, environmental remediation for residential use, which has higher standards, would be expensive. In addition, the regulatory framework, specifically the City of Brisbane's General Plan, must be changed to allow residential developments. Therefore, the environmental conditions and corresponding regulatory framework combined with high cost of environmental remediation are viewed as relatively fixed constraints that are unlikely to change.

In Millbrae and San Bruno, the proximity of the San Francisco International Airport to these cities has resulted in building height regulations and restrictions on new development within the flight path of airplanes taking-off from the airport. These airport-related conditions are viewed as fixed constraints.

The Town of Colma has 17 cemeteries which comprise approximately 73 percent of the town's land area.³¹ This study considered that having large part dedicated to cemeteries as environmental constraints as cemeteries are "sensitive receptors" to impacts. In addition, this land use is not likely to change.

³¹ Town of Colma, http://www.colma.ca.gov/profile.html

4.7 Market Potential

As discussed in the market overview in Chapter 2, there is significant market potential for new station area development in San Mateo County considering the following:

- Employment growth and supply will continue to outpace population growth and housing supply;
- The population is aging and shifting the demand for the type of housing that is desired; and,
- Housing affordability and traffic congestion continue to be issues.

With respect to residential development, the demand for housing near transit will increase. There is a growing demand for a denser housing product – condominiums and townhomes – for their smaller size and relative affordability, as well as their proximity to amenities and transit. Households headed by an older population are growing, and they are showing an increasing preference for this type of housing. Housing near transit can have some impact on housing affordability, since the cost of owning and maintaining a vehicle can be reduced or eliminated, thus providing a resident with more income for housing or other living expenses.

Although there is still substantial vacant office space in the County, it is estimated that approximately 24.4 million square feet of office space will be needed near San Mateo County rail stations by 2030. This translates to roughly one million square feet per year. While the demand for office development may not be present at each station, several of the North County station areas have and will continue to experience demand from biotechnology firms. Software and internet/interactive gaming industries will drive office demand in Central County and South County station areas.

The retail opportunity analysis shows that retail establishments that sell food, entertainment, and specialty items will be in high demand relative to other retail uses. This demand is directly related to the growing population of households without kids that will locate to housing near transit stations.

The market potential for development in each of the station areas is summarized below.

<u>Atherton</u>

The area surrounding the Atherton station is almost entirely residential. Recent home sales within one-quarter mile of the station have averaged \$1,553,813 reflecting both the value of the land and the larger, high-quality older homes that surround the station.³² Due to the high price of land and a General Plan that does not allow any new development, opportunities for intensifying land uses surrounding this station are virtually non-existent.

<u>Bayshore</u>

The Brisbane station area is characterized by significant physical development opportunity and access to U.S. 101. Potential for residential TOD is limited by zoning restrictions imposed by the

³² Residential home sales since 2000, First American Real Estate Solutions, Inc.

City of Brisbane's General Plan. The General Plan restricts residential developments due to environmentally hazardous condition of the landfill that makes up the site. In addition, the area is significantly disconnected from Brisbane's existing residential and commercial fabric. However, the Baylands site represents one of the few locations in San Mateo County where a significant scale of new office development may be achieved. The Brisbane Baylands Phase I Specific Plan identifies up to five million square feet of commercial developments at the Baylands site, though the viability of this site is dependent on minimizing the time required to access U.S. 101. This site is located immediately adjacent to the station, and close to major employment centers in San Francisco and the "East of 101 Area" in South San Francisco.

<u>Belmont</u>

The ½-mile radius area surrounding the Belmont Station is relatively built out. Where appropriate, intensification within the station area should focus on enhancing the residential product mix in the area. Belmont is the second highest income station area in the County after Atherton. Combined with above average residential density in the station area, the retail buying power in the area is strong. While a moderate amount of retail exists within ¼ mile of the station area, the area lacks definition as a unified shopping district, missing the opportunity to use retail to define the character of the station area. Specialty retailers may be found nearby in San Carlos. The presence of somewhat older, more suburban retail formats in the area and larger surface parking lots may point to the opportunity to upgrade much of this retail. Additional office demand will be limited to smaller service-related Class B tenants. Some commercial development opportunities may exist in the narrow parcels along the Caltrain right-of-way.

<u>Broadway</u>

The Broadway commercial district features a healthy mix of retailers that provide a more locallyoriented shopping experience as compared to Burlingame Avenue. The area to the west of the station is largely built out and intensification should be limited to residential, and smaller portions of retail, service commercial and class B office uses. The Broadway station area may be attractive to younger, single-person households.

Burlingame Ave

Burlingame Avenue is a working "main street" retailing environment with the critical mass to draw from a relatively large trade area. The area's retailer mix and role as a regional shopping destination presents an opportunity to create a strong regional identity for the station area. In addition, the walkable and attractive nature of Burlingame Avenue effectively extends the station area into the residential neighborhoods to the west. At the same time, it should be recognized that ridership is unlikely to receive a strong direct boost from the patrons of the Burlingame Avenue stores. As the city seeks to identify appropriate ways to intensify land uses in the area, meeting parking demand will become a more important issue. Facilitating development that reinforces connection of the Burlingame Avenue shopping district and the Caltrain station will be paramount for the future success of any TOD development near the Caltrain station.

<u>Colma</u>

The key opportunity at the Colma BART station is the existing seven-acre SamTrans-owned Park and Ride lot to the west of the station. The site is not well-suited for residential development due to the isolated nature of the area which is bound by Interstate 280 to the west, the cemetery and public storage to the south, and the BART maintenance yards and station to the east. However, the site's excellent visibility and access present an attractive opportunity for a retail and office development. In particular, this site may be particularly well-suited for destination retail catering to young families and Asian-Americans, and/or educational facilities. The area also benefits from proximity to the Sutter Health Center and Kaiser medical offices, which continue to expand. This potential is limited, however, by proximity to Colma's cemeteries, which health care providers prefer to avoid. Some moderate-density infill opportunities may exist to the east of the station, across El Camino Real. Improving pedestrian access across El Camino Real may also help to spur residential infill in the narrow lots along El Camino Real.

Daly City

The Daly City station area is seeing substantial new development within the station area with the third phase of Pacific Plaza in place. Renovation of the Westlake Shopping Center may hold some potential to intensify this location as a retail center, though this intensification is unlikely to be driven by access to Daly City BART. Anecdotal evidence indicates that a comparatively higher-proportion of consumers use BART to access the multi-plex cinema at Pacific Plaza (customer's mode of access is not tracked by the owner, Century Theaters). Though no retail will truly be transit-dependent, incorporating additional complimentary retailers into Pacific Plaza's future phases may help to increase its presence as a retail destination on BART.

Most property near the BART Station is on the edge of an existing neighborhood. Some opportunities may exist to incrementally intensify the lower-density neighborhood to the east of the station, though few, if any, of these lots could be considered an individual opportunity. Strategies such as encouraging intensification through the addition of in-law units, duplexes or detached studios will be more viable strategies.

<u>Hayward Park</u>

The Hayward Park station presents an unusual opportunity to create a regional mixed-use district comprised of existing new residential development, large-format retailers, local convenience retailers, and offices. Key opportunity sites, including the present Caltrain parking lot, may present the opportunity to introduce an integrated land use and access pattern that is supportive of a horizontal mix of both residential commercial uses. With such improvements, the area has potential to capture demand for housing near transit in the County.

At the same time, fundamentals such as access and visibility from SR 92, U.S. 101 and El Camino Real, a more unified ownership structure, and the limited potential to impact existing residential neighborhoods, support the potential for continued commercial development. Careful consideration should be taken in the addition of office space in the area. The ½-mile station area presently contains significant Classes A and B office space (upwards of 1.5 million square feet) defined principally by the Bayshore Corporate Center and Crossroads Commercial Center, which suffer from poor connectivity in the station area. However, tenant and broker interviews will help to determine the type of office users that might be attracted to this type of larger mixed-use environment. By unifying the subareas within the ½-mile station area, the opportunity exists to create an area with a stronger regional identity as a mixed-use center.

<u>Hillsdale</u>

The key component of the Hillsdale station area is the redevelopment of the 83.5-acre main track area of Bay Meadows. The land use program for the site includes 1.25 million square feet of office use, 1,250 multi-family residential units, 150,000 square feet of retail, and 15 acres of public parks and open space. The Bay Meadows plan will complete the existing office, retail and residential mix to northeast of the station area. It is likely that the developer of this site will construct the remainder of this program all at once, introducing a substantial level of supply into the station area. In the short-term, the development potential of nearby opportunity sites will be dependent on the velocity of absorption, which is dictated by where the national and regional real estate market exists in the business cycle. In the long-term, however, the substantial development intensity introduced by the Bay Meadows project and the expansion of the Hillsdale Shopping Center will improve the overall value of real estate in the area, increasing the potential for development of opportunity sites such as the parcel to the north of Border's Bookstore, the Ah Sam's (nursery) located at El Camino Real and 26th Street, the Vacant cinema (south of the Border's Bookstore), and TGI Friday's site.

<u>Millbrae</u>

Development following the Millbrae BART Area Specific Plan will test the Millbrae station as a combined office, retail, hotel and residential station area. Opportunities to the east of the station are limited significantly by the flight path of planes landing at the San Francisco International Airport. The Joint Powers Board owned lots to the south of the station may present some opportunity for development of additional office uses. In addition, "Parcels 5 and 6" to the south of the station , as identified in the Millbrae BART Specific Plan, are well-suited for office, though interest in developing this site for commercial uses has been thwarted by high land costs. The parcels are less suitable for residential uses due to their physically isolated position amidst the dense infrastructure in this area as well as the noise and fumes generated by automobiles, trains, and aircraft in extremely close proximity. There are as many as 735 units in the pipeline or under construction in the station area, equivalent to more as much as 5 percent of the City's housing stock. Most of this development is taking place along El Camino Real or in the neighborhood to the west of El Camino Real.

<u>Menlo Park</u>

Over the last 15 years, the Menlo Park station area has seen upgrades to the intensity of development immediately around the station while preserving the historic building stock where appropriate. Menlo Center, completed in 1989, served as a catalyst for improvements in the area and demonstrates that smaller increments of Class A office space may work in some station areas along the El Camino Real corridor. Historically, vacancy rates at Menlo Center have remained low, suggesting the potential to add more of this type of space in the area. Some opportunity may also exist to intensify local-serving retail in the station area, with careful concern for synergistic opportunities to connect residential uses, potentially in lots between the Caltrain right-of-way and El Camino Real, could also help to intensify the mixed-use character of this area.

Redwood City

A 160,000 square foot expansion of a mixed-use building with a 20-screen theater complex has opened in summer 2006 to the east of the station. A city parking structure accompanies the

redevelopment. Immediately west of the station, the Sequoia Station shopping center is well tenanted and flourishing; though its lower-density strip retail format could be intensified over time, ideally with the addition of residential uses above retail. Though the median income in the station area is the lowest of all the San Mateo County stations, and the citywide median income of \$66,748 is less than the County's \$70,819, the critical mass of consumers anchored by the downtown, the new cinema and associated shops, and the Sequoia Station create a critical mass sufficient to make the downtown a retail destination. Over time, this site could be upgraded and intensified to complement the retailing on the other side of the station. Though physical opportunity may be limited, the proximity of the station to the downtown and the cinema project provide many of the urban amenities that TOD households look for. Infrastructure improvements to better connect development such as Franklin Street Apartments will maximize the potential market value of these amenities. The remainder of the ½-mile radius station area is fairly compact, with a grid street pattern enhancing the pedestrian circulation in the downtown area.

<u>San Bruno BART</u>

With the presence and upgrading of the Tanforan Shopping Center, the San Bruno BART station is one of the stronger retail-based transit areas in the County. Further intensification with retail, office or residential uses could be accomplished over time with continued replacement of surface parking with structure. The large and small retailers appear to be healthy with minimal apparent vacancies. The success of this retail area makes the station area an attractive location for some specialty retailers, and for higher-density housing with access to this amenity. "The Crossing" development entails redevelopment of the 20-acre former U.S. Naval facility within the station area. El Camino Real and large parking lot at the Tanforan Shopping Center presents challenges for pedestrian access between the station and "the Crossing." Despite the challenge in pedestrian access, "the Crossing" development provides an opportunity to create a more unified, mixed-use station area, and may potentially help to create a tie between the small residential neighborhood to the west of Huntington Avenue and the station area.

San Bruno Caltrain

Plans have been developed to build a new San Bruno Caltrain Station at the triangular intersection of San Mateo Avenue and Huntington Avenue. The new station location presents an excellent opportunity to define this commercial district as a station area. The retail rents are among the lowest in the Peninsula. Stronger integration with the station area may create some opportunity for upgrading the existing retail. Some buildings along San Mateo Avenue may be replaced or retrofitted over time with residential developments above the stores. Residential development should focus on the opportunities to broaden the mix of housing in the neighborhood, as a means to encouraging reinvestment in the area while controlling displacement. The presence of larger and more families as compared to other stations areas suggests the potential for displacement as demand is expected to grow among wealthier, nonfamily household types that prefer to live near transit. Overall, this sensitive area will require mechanisms to maintain residential stability in the neighborhood. Strategies should focus on encouraging local reinvestment in the housing stock without displacing existing households. Airport noise and height restrictions limit the potential for intensification through increased building heights.

San Carlos

The San Carlos station area features a healthy mix of commercial and residential uses. SamTrans is engaged in negotiations with Legacy Residential Partners to develop about 7.5 acres of land located to both the north and south of the San Carlos Caltrain Station, on the east side of El Camino Real. The development plans have been formally submitted to the City of San Carlos to commence a project approval process that is expected to take between 12 and 18 months. The project currently includes about 280 residential units, 35,000 square feet of commercial space, the creation of a pedestrian plaza at the front of the historic Caltrain Station building and the construction of a new transit center to the south of the station area. The City of San Carlos and SamTrans are also working together to develop ancillary projects to enhance the pedestrian connections between this project and downtown San Carlos, in order to improve the linkages between the east and west sides of El Camino Real.

San Mateo

The higher downtown densities surrounding the San Mateo station suggest that the potential for significant development is limited. Some of the office space in downtown San Mateo could be upgraded from Class B to Class A, though the San Mateo Class A office market holds one of the highest vacancy rates in the County (due in part to the departure of Siebel systems, just outside of the ½ mile station area.) In the long term, systematic upgrading of downtown San Mateo office space may hold the potential to attract a critical mass of the Class A users that prefer to be near transit and the amenities of the downtown area, but are locating in newer space outside of the downtown. As with all stations in the County, however, office development that builds on an already concentrated employment center is more likely to generate transit ridership. Finally, new residential development or, potentially, conversion of commercial buildings to residential uses may help to reinvigorate activity in the downtown.

South San Francisco BART

The immediate station area surrounding the South San Francisco BART station has seen substantial buildout of the specific plan developed for the station area. Additional development within one-half mile should focus on residential development with improved connectivity to the station. The existing base of community- and region-serving retail provides the opportunity to provide a variety of goods and services to transit users that could not be supported by transit users alone. New retail should be complimentary to the existing merchant mix, oriented toward transit riders, and should minimize the need for additional parking.

South San Francisco Caltrain

At the South San Francisco Caltrain Station, there is moderate potential for infill opportunities for higher-density residential to the west of the station due to the proximity of established residential areas within the ½ mile and the proximity to major employment centers. Intensification of biotech space to the northeast ("East of 101 Area" or Oyster Point) has moderate potential because of the existing cluster of biotech companies that are already established in the area and the availability of shuttle service from the station. Demand for retail business is fair because the retail market in the area is somewhat saturated. Any new retail should focus on supporting surrounding residential and nearby employment centers.

Plans to improve the South San Francisco station will create the opportunity for better connectivity between the station and the east and west sides of the tracks. Some opportunity for smaller commercial uses may exist immediately to the west of the station along Airport Boulevard abutting U.S. 101. Development in this area could be used to help "extend" the station across Airport Boulevard to create a stronger sense of connection to the Grand Avenue commercial district. The Grand Avenue commercial district appears to possess few retail vacancies, with a mix of retailers addressing a moderate-income demographic. To the east of the station, the connections may be improved to the office users in this area, where significant new development is targeting biotech users. This focus could potentially be extended through replacement of warehousing and distribution facilities immediately to the south of the station with more transit-supportive biotech space. The city recognizes the long-term TOD potential of this area which is bounded by U.S. 101, East Grand Avenue, and Gateway Boulevard.

5.0 INTRODUCTION TO PHASE II

5.1 Phase II Overview

The purpose of Phase II is to develop a specific plan of action to initiate TOD at the stations areas selected at the conclusion of Phase I. This plan of action will present strategies for overcoming barriers identified in Phase I that may limit the ability for station areas to fully leverage the benefits of transit. Selection of the station areas was determined through consultation between SamTrans and the cities with the support of the consultant team. The goal of the Phase II selection process was to present a range of opportunity station areas with a diverse set of constraints and to identify strategies for station areas that could benefit from the TOD Opportunity Study work products, and to partner with cities that were willing and interested in participating in Phase II.

Phase II included the following tasks:

- Cost /feasibility analyses for developing small-scale infill development;
- Assessments of TOD-generated benefits to rail transit, primarily potential ridership gains and shifts in transportation mode splits;
- Identification and development of TOD-friendly planning policies and legislative initiatives to support infill development.
- Development of outreach strategies to broaden and maintain a dialogue with stakeholders about ongoing planning efforts.

5.2 Phase II Station Area Criteria

The criteria used to formulate preliminary recommendations for Phase II were as follows:

- TOD readiness city has supportive policies in place or is willing to modify existing policies; the station area has not advanced too far in implementing TOD, but would benefit from further analysis provided by this study. In addition, a built-out area would limit opportunities for redevelopment/densification of the existing land uses.
- Data availability sufficient data was available in Phase I to assess existing conditions and opportunities for future development
- Interest in participation the jurisdictions within the station area consent to the selection and are willing to participate in Phase II

In addition to using the above criteria, the TOD study team also attempted to select a diversity of station areas that are addressing different issues and constraints. For example, some station areas have large parcels of vacant or underutilized land that are ripe for development. Other station areas have smaller parcels that are scattered amongst relatively low-density development and require a more incremental approach to encouraging and implementing TOD. The station areas that were proposed include cities that are facing an array of issues that have presented challenges to implementing TOD.

'TOD Readiness' Classification

Station areas were classified according to the study team's assessment of TOD readiness, as shown in Table 5-1. Readiness is based on each jurisdiction's interest and involvement in TOD planning and implementation to-date.

- Tier 1 station areas have successfully planned and implemented TOD, or are built-out and have substantial densities and mixed uses.
- Tier 2 station areas have engaged in TOD planning, and have potential for furthering their efforts with additional market analysis, policy modifications, and/or other assistance.
- Tier 3 station areas have not conducted any TOD planning studies or implementation todate and may have experienced community opposition in the past.

Station areas in the Tier 2 readiness category were considered as strong candidates for Phase II of this study.

TOD Readiness			
Tier 1- TOD-supportive	Tier 2 – TOD Planning interest	Tier 3 – Familiar with TOD, no	
policies in place, plans or	or in progress	studies or implementation	
implementation already			
completed or area is built-out			
(few redevelopable parcels)			
Hayward Park	Belmont	Atherton	
Hillsdale	Broadway	Bayshore	
Menlo Park	Burlingame		
Redwood City	Colma		
San Mateo	Daly City		
South San Francisco BART	Millbrae		
	San Bruno BART		
	San Bruno Caltrain		
	San Carlos		
	South San Francisco Caltrain		

Table 5-1: Station Area Classification by TOD Readiness

5.3 Preliminary Recommendations for Phase II

Table 5-2 lists the station areas that were recommended for further study in Phase II as well as the primary reasons for the recommendation.

Station Area	Jurisdiction	Candidate Phase II	Notes
Atherton	Atherton		Policies do not allow for new development, mixed uses,
Caltrain			or higher densities.
Bayshore	Brisbane		Large undeveloped sites adjacent to the station, no
Caltrain			relationship to Central Brisbane.
			Important regional connection between MUNI Third
			Street light rail transit and Caltrain.
			Existing policies in support of redevelopment, but does
			not allow residential uses. City/County of San
			Francisco spearheading planning efforts adjacent to
			the station.
Belmont	Belmont	\checkmark	Small parcels, some recent medium-density
Caltrain			development.
			Participant in Peninsula Corridor Plan and Grand
			Boulevard Initiative.
			Example of small-scale TOD implementation.
Broadway	Burlingame		Declined to participate due to staff shortage.
Caltrain			The City's General Plan includes TOD friendly
			policies.
Burlingame	Burlingame		Declined to participate due to staff shortage.
Caltrain			The City's General Plan includes TOD friendly
			policies.
Colma BART	Colma/	\checkmark	Large SamTrans park-n-ride lot is currently
	Daly City/		underutilized, and SamTrans is willing to redevelop.
	San Mateo		Participation with Colma, Daly City and San Mateo
	County		County is important and is already underway
Daly City	Daly City		Comprehensive station plan completed. Daly City and
BART			BART have already engaged in station area planning
			efforts, which mostly address access issues.
			Pacific Plaza Phase 3 planning is underway.
Hayward Park	San Mateo		Large site (K-mart) with development potential
Caltrain			Challenging station access issues.
			Existing policies and plans in support of
			redevelopment. San Mateo has undertaken several
			planning efforts related to TOD.

Table 5-2: Station Areas Recommended for Phase II
Station Area	Jurisdiction	Candidate Phase II	Notes
Hillsdale	San Mateo		Bay Meadows Phase I is already built, Phase II is
Caltrain			planned. San Mateo has undertaken several planning
			efforts related to TOD.
			Plans are being developed for a new Hillsdale station
			which will address station access deficiencies.
Menlo Park	Menlo Park		City has supportive policies in place. Downtown area
Caltrain			is relatively built-out.
			City's TOD efforts focused on the proposed
			Dumbarton station at Willow Road.
Millbrae	Millbrae	\checkmark	Important regional connection between BART and
BART/Caltrain			Caltrain.
			Policies are supportive of TOD and redevelopment is
			already occurring.
			SamTrans is willing to redevelop its land.
Redwood City	Redwood	\checkmark	Downtown Precise Plan is in place. Area is mostly
Caltrain	City		built-out, already functioning TOD; However a
			significant amount of redevelopment continues in
			the downtown area.
San Bruno	San Bruno/	\checkmark	Large industrial site (in South San Francisco) with
BART	South San		development potential. Will require cooperation
	Francisco		between San Bruno and South San Francisco.
			"The Crossing" redevelopment already occurring
			within the station area at the former Navy site.
San Bruno	San Bruno	\checkmark	Station plans in development to relocate to a more
Caltrain			visible location, serving as gateway to downtown San
			Bruno
			Example of smaller scale redevelopment, reinvestment
			in existing downtown
San Carlos	San Carlos	\checkmark	Large vacant site adjacent to station owned by
Caltrain			SamTrans.
			Other parcels are small and scattered; Potential
			example of incremental TOD.
San Mateo	San Mateo		Area is built-out, already functioning TOD
Caltrain			San Mateo has undertaken several planning efforts on
	-		related to TOD.
South San	South San		A TOD development next to the station is complete,
Francisco	Francisco		and there are two additional TOD projects are in
BART			progress.
South San	South San	✓	Station plans being developed to improve station
Francisco	Francisco		facilities and improve access.
Caltrain			Significant employment growth expected, existing
			regional employment center.
			Large site with development potential.

Table 5-2	: Station Areas	Recommended f	for Phase	e II ((Continued)	1
Tuore o D	· otation micao	Itecommentaca i	LOI I HIGO		(Commaca)	٢.

5.4 Phase II Focus Areas

The purpose of Phase II was to develop recommendations and action plans for advancing TOD in San Mateo County, as well as to assess the systemwide benefits of TOD to transit (BART and Caltrain). The project team met with city representatives from seven station areas (San Carlos did not have adequate staff resources to participate in Phase II) to affirm the issues that were identified in Phase I and to determine in what areas to focus its recommendations. The following station areas were included in Phase II:

- Belmont Caltrain
- Millbrae BART/Caltrain
- Redwood City Caltrain
- San Bruno Caltrain
- South San Francisco Caltrain

The Colma BART and San Bruno BART stations face challenging issues, particularly with regard to station access and physical barriers between the station and surrounding areas. The project team felt that tackling these physical design issues would have been of great value to the individual stations, but that these solutions would not have been as transferable to other station areas as the other tools and strategies that were developed. Therefore, recommendations for these two stations areas were not developed.

While the Phase II recommendations focused on five of the 18 station areas in the County, the project team aimed to prepare recommendations that would be applicable to other station areas facing similar issues. The issues that were addressed in Phase II are as follows:

Station Area	Focus Areas for Recommendations
Belmont Caltrain	Parking Management, Public Outreach
Millbrae BART/Caltrain	Land Assembly / Incentivizing Infill Development
Redwood City Caltrain	Land Assembly techniques
San Bruno Caltrain	Land Assembly / Incentivizing Infill Development
South San Francisco Caltrain	Land Assembly / Incentivizing Infill Development, Improving
	bicycle access

 Table 5-3: Phase II Station Areas and Focus Areas for Recommendations

Chapter 6 describe each focus area and the major findings. Site availability and ease of assembly issues identified in Chapter 4 rose to the top as a focus area with which city representatives requested more assistance. In order to promote infill development and balance the need for parking and other modes of station access, some policy recommendations were developed. These were also cited as issues in Chapter 4.

6.0 PHASE II FINDINGS

6.1 Small Scale Infill Development Feasibility Analysis

The two major challenges to TOD implementation that were identified during the interviews with City staff included (1) difficulty with assembling land for larger development projects and (2) encouraging small-scale infill development in areas which were zoned for slightly higher densities or more intensive land uses. Caltrain station areas, in particular, tend to be surrounded by older, low-density residential neighborhoods and commercial districts with small parcels (by development community standards). In response to these two challenges, the project team interviewed several local developers to find out how local government could make it more attractive for developers to construct smaller developments. The team also tested the financial feasibility of these various small parcel sizes as either all residential or as a mixed-use development with retail on the ground floor and residential on the upper floors.

The Millbrae BART/Caltrain station area, for example, has long been a focus of planning efforts by the City of Millbrae. In 1996, the city approved a specific plan that included extensive research on market potential, financial feasibility, and implementation strategies for new development. The specific plan highlighted possibilities for 13 opportunity sites near the station, some of which were made up of multiple contiguous parcels that could only be developed with land assembly.

Since the passage of the specific plan, few of the sites have been developed and there is resistance by some property owners to sell their parcels for inclusion in a larger site. City staff are concerned that attracting development on smaller individual parcels will be difficult, and that the resulting development will not be intensive enough to create the desired transit-oriented environment around the station area. Most of the touted examples of TOD in the Bay Area are large-scale, individual developments, which require parcels of at least several acres.

The issues faced by Millbrae are common for most Bay Area cities whose stations are located in existing urbanized areas, and particularly those near historic downtowns or commercial areas made up of smaller parcels. The Caltrain stations areas of Redwood City, San Bruno, South San Francisco, and other station areas in San Mateo County face similar situations, where there is a desire to promote infill development while respecting the existing urban fabric and land uses there.

<u>Methodology</u>

The project team used the following methodology to understand and develop recommendations for overcoming barriers to land assembly and to determine the feasibility of small-scale infill development:

- Interviewed developers to understand the context in which infill development currently happens in San Mateo County;
- Conducted a physical and financial analysis on prototypical parcel configurations similar to those found near the Millbrae, San Bruno, and South San Francisco Caltrain Stations;

• Reviewed the literature on existing tools that are used to promote infill development and land assembly, reviewed examples of techniques that Bay Area cities have used to successfully promote infill development and land assembly, and evaluated the nuance of using of these tools specifically near transit.

Local Developer Perspectives

The team interviewed five developers who have completed or are currently pursuing infill projects on the Peninsula. Most of the developers interviewed have experience with projects in San Mateo County, but the team included developers who had completed projects in other nearby Peninsula cities. Following is a summary of the major findings from these interviews. See more details of the developer interviews in Appendix V.

Shared parking policies and reduced parking ratios are key to making mixed-use development work.

Overwhelmingly, developers cited parking as the main constraint to developing smaller parcels. The limitations of accommodating parking spaces and circulation within a small site can often constrain the total density and heights that are achievable in a project. Most of the mixed-use projects that developers pursued relied on off-site parking for retail space. Developers strongly supported shared and public parking strategies in order to limit the number of on-site retail parking spaces that are needed.

To accommodate residential parking needs on-site, developers in San Mateo County are pursuing a variety of creative strategies. Podium parking is achievable in most situations, but underground parking requires a parcel of at least 10,000 square feet due to the ground floor space taken up by ramps and other access. One developer in Palo Alto is constructing residential parking that is served by a car lift, which takes residents to an underground lot. With this technology, the developer is able to accommodate underground parking on a 6,000 square foot lot. However, this developer in particular is able to make this technology feasible by offering luxury penthouse-style units that include other amenities such as ample open space. Panoramic Interests, a developer in Berkeley, has installed a parking lifts at several of its residential buildings, including 1910 Oxford Street, providing parking for 39 cars in a space that normally would have accommodated only 12 cars. ³³

Streamlining the entitlements process is especially important.

Developers of small parcels have limited financial resources, and benefit greatly from understanding what exactly will be expected from them in terms of their time frame for public hearings, permitting, and design requirements. As described by a developer of a four-unit project, numerous changes requested the entitlements process (i.e. subdivision request, design review) could make a small project infeasible. All developments have a set of costs that are fixed relative to the size of the project, which incentivizes larger projects over smaller ones. A developer of a ten-unit project generally has to undertake the same public hearing, design review,

³³ San Francisco Chronicle, "Robotic Parking Adds Spaces In Tight Places" http://www.sfgate.com/cgibin/article.cgi?file=/chronicle/archive/2000/04/17/MN77281.DTL, published on April 17, 2000. (Accessed on June 20, 2007)

and environmental review as a developer of a project five times as large. Thus, the returns on smaller projects are not as favorable as larger projects. Some of the more "fixed" costs of development include:

- Infrastructure costs such as elevators;
- Environmental review and other project assessments; and
- Work and time supporting design review and other public hearings.

Public facilitation of land assembly is necessary.

None of the developers interviewed had assembled parcels themselves, although several had benefited from the assembly and redevelopment efforts of local agencies. Private land assembly requires balancing multiple negotiations in a timely process, in order to ensure that a proposed project can stay cost effective. Holding land for extended time is financially infeasible in the private market because it is nearly impossible to secure financing without some guarantee that a property will gain value over time through development. Though private parcel assembly is a rare occurrence, it can be made more common if developers and brokers at least know when parcels are available for purchase.

Developers of small parcels are often local entrepreneurs, with strong community involvement but limited financial resources or expertise.

There are benefits and drawbacks to having local entrepreneurs responsible for the bulk of small parcel development. Local entrepreneurs are often inexperienced, but highly involved and personally invested in their local communities. They are willing to take greater risks because they have a greater personal sense of what their community needs, but this means that projects sometimes move forward on a shoestring budget where the smallest change can lead a project to failure.

If local entrepreneurs are going to be the major source of new development in areas of small and fragmented ownership, they need greater backing from local public agencies in the form of reduced risk, full disclosure of what a public hearing process might involve, and/or investment in public amenities.

6.2 Small Parcel Development

Financial feasibility of small parcel development was performed in order to understand the exact limitations of small-scale development given current market conditions and land use regulations. The intention of this analysis was to specifically evaluate the potential for accommodating higher density development on small parcels, with the overall goal of intensifying areas near transit to achieve the benefits of transit-oriented development without a big project. The following section describes the methodology used in the feasibility analysis and provides a summary of key findings from the overall analysis. It then summarizes the results for each individual scenario. The complete financial analysis is provided in Appendix Y.

6.2.1 Methodology

The team completed a physical and financial analysis to test the feasibility of intensive development programs on three different sized lots: a 25 feet by 100 feet lot, a 50 feet by 50 feet lot, and a 100 feet by 100 feet lot. These lot sizes represented the three typical small parcel sizes found in the business districts near the San Bruno Caltrain, the Millbrae BART/Caltrain, and the South San Francisco Caltrain stations. Assumptions used in the analysis (i.e. parking ratios and building height limits) are discussed in Appendix W. One key assumption that should be noted is the residential on-site parking requirement of 1.3 spaces per unit. This requirement was based on other TOD projects in suburban Bay Area locations and is critical to the financial feasibility of the scenarios tested in this analysis.

For each lot size, the team first conducted a spatial analysis of the lot to determine which parking and land use scenarios could fit on the lots given their relatively small size. After eliminating some combinations of buildings types and lot sizes because they were physically infeasible (for example, a mixed-use building with underground parking cannot physically be accommodated on a 25 feet by 100 feet lot), the team then examined the physically viable alternatives to determine their financial feasibility given current market conditions. The development programs which were tested for financial feasibility are summarized in Table 6-1.

Development Scenario	Lot Size One:	Lot Size Two:	Lot Size Three:
	25' by 100'	50' by 100'	100' by 100'
Residential Development	О	0	0
Podium Parking			
Mixed-Use Development	Х	0	0
Podium Parking			
Residential Development	Х	Х	0
Underground & Podium Parking			
Mixed-Use Development	Х	Х	0
Underground & Podium Parking			
Residential Development	Х	Х	0
Underground & Podium			
Inclusionary Housing			
Residential Development	Х	Х	0
Underground Parking			
Residential Development	Х	Х	0
Underground & Podium Parking			
Payment of In-Lieu Fee			

 Table 6-1: Summary of Development Scenarios Tested for Financial Feasibility

Notes: "O" indicates scenarios tested for financial feasibility. "X" indicates physically unviable scenarios based on spatial analysis.

Source: Strategic Economics and HNTB, 2007.

Land residual analysis was used to evaluate the financial feasibility of development on the site. In this approach, the "residual land value" of a property is derived by estimating the total revenue from development and then deducting the costs associated with building the project. The remaining amount is an estimate of the land cost the project can support. If the residual land value is equal or greater than current land prices, the project is feasible. If it is below current land

values, the project is infeasible. A more detailed description of this approach is provided in the Appendix W.

The advantage of this approach is that it produces one number, the residual value of land, which can be directly compared to any current land price to determine financial feasibility. This means if land prices fluctuate throughout San Mateo County, the analysis can still be relevant to any given area. For this analysis, the team compared the results of the land residual analyses to recent land sales in the three jurisdictions in San Mateo County that generated an average sales price of \$32 per square foot. However, when land values change or another value seems more appropriate for a particular area, the analysis can still be applied to the types of projects considered in this analysis. In fact, the scenarios evaluated support a range of land values, from \$22 per square foot up to \$203 per square foot.

6.2.2 Key Findings from the Small Parcel Development Financial Analysis

Table 6-2 summarizes the TOD feasibility on a typical small parcel in San Mateo County. Maximum sizes developable under each scenario are provided in parentheses.

The scenarios that sustain the highest land costs and generate the greatest yield to developers are those that maximize the total number of residential units on the site. This finding holds true for all three lot sizes. In fact, in the residential scenarios the residual value of

land nearly doubles from the 50 feet by 100 feet lot to the 100 feet by100 feet lot (from \$104 to \$203 a square foot) because the stacked parking scenario (underground parking with podium on top) is physically viable and allows for the development of 32 units rather than 8 units. Number of dwelling units is largely determined by parking spaces available on-site.

Development on small lots is difficult because parking poses both a financial and spatial challenge.

Parking is a key determinant in the number of units that can be supported on site. Further, the financial feasibility of development is maximized when the number of units on the land is maximized. For this to happen, parking solutions must be creatively addressed. First and foremost, parking ratios that govern the number of parking spaces dedicated to each unit should be evaluated. The lower this number, the more units a site can support. Moreover, structured parking is expensive to build and, therefore, a project's financial feasibility improves as the parking ratio decreases. Other solutions to the parking challenge are to utilize parking lifts or elevators that minimize the amount of space dedicated to each car by stacking cars vertically without the need for ramps.

Development Scenario	Scenario 1: 25' x 100' Lot	Scenario 2: 50' x 100' Lot	Scenario 3: 100' x 100' Lot
Residential Podium Parking	Yes (4 Units)	Yes (8 Units)	Yes (17 Units)
Mixed Use Podium Parking	No	Yes (4 Units 2,000 Sq. Ft. Retail)	Yes (Units/Sq. Ft. Unknown)
Residential Underground + Podium Parking	No	No	Yes (32 Units)
Mixed Use Underground + Podium Parking	No	No	Yes (16 Units 5,400 Sq. Ft. Retail)
Residential Underground + Podium Parking 15% Inclusionary Housing	No	No	Maybe (32 Units)
Residential Underground + Podium Parking 20% Inclusionary Housing	No	No	No
Residential Underground + Podium Parking In-Lieu Fee of \$43,167 per Unit, All Units	No	No	Yes (32 Units)
Residential Underground + Podium Parking In-Lieu Fee of \$150,000/unit for 15% Units	No	No	Yes (32 Units)

Table 6-2: Summary of TOD Feasibility on Typical Small Parcel Sizes in San Mateo County

Strategic Economics and HNTB, 2007.

Note: Assumes land values of \$32 per square foot. Some areas of the county may have higher land values. For actual land values please see Appendix W.

Mixed-use development becomes increasingly feasible as lot size increases, particularly if underground parking is achievable.

Mixed-use development is generally infeasible on narrow lots because a significant share of the street frontage is needed for parking entry and exit. The retail use occupies the ground floor, leaving little room for parking supply. Thus, while the mixed-use scenario was achievable on the mid-sized lot in this analysis, it only yielded 2,000 square feet of retail space. Including underground parking improves the utility of a site. However, as the spatial analyses conducted in this report have shown, underground parking cannot work on many small sites because there simply is not enough room to include a ramp and the necessary circulation routes. As lot sizes increase, and underground parking becomes achievable, mixed-use developments also become

more feasible. This is because parking is not sacrificed for the inclusion of retail space on the ground floor.

Larger or combined lots increase potential for density and developer profits.

Even within the small parameters of this analysis, a 10,000 square foot lot can accommodate significantly more than a 5,000 square foot lot. As lot sizes increase, the number of available parking options also increases and the development is able to support more units. Projects on larger lots can also more easily accommodate mixed-use development.

Inclusionary requirements may limit infill development on smaller lots.

Inclusionary requirements for the provision of affordable housing units can make the difference in the profitability of smaller parcel development. In this analysis, the only development scenario that could incorporate inclusionary housing requirements and remain financially feasible was the largest lot size (a 100 feet by 100 feet lot) because it could accommodate substantially more units than other lot sizes. In-lieu fee requirements are more achievable for all lot sizes than a standard 15 percent or 20 percent inclusionary housing requirement.

6.2.3 Small Parcel Analysis - Lot Size One: 25 feet by 100 feet

This section examines the feasibility of development on a 25 feet by 100 feet lot with the development program shown in Table 6-3. The spatial analysis showed that a parcel of this size is too small to accommodate underground parking because there is not enough room for a ramp and necessary circulation space. Therefore, this analysis focuses solely on the financial feasibility of podium parking. Further, this analysis evaluates only residential uses for the site because spatial analysis revealed that the lot size is too small to support retail uses. A retail use on the front of the site would only be feasible with rear access to parking provided by an alley or corner lot. In order to accomplish this, 12 feet of the building's width would be necessary, leaving only 13 feet of frontage for retail and taking the parking spaces that are necessary to achieve higher densities.

Parcel Size (Square Feet)	2,500
Number of Stories	3
Commercial Square Feet	0
Residential Units	4
Residential Square Feet	4,998
Parking Type	Podium
Number of Parking Spaces	6
Dwelling Units Per Acre	70

Table 6-3: Lot Size One - Development Scenario

Notes: Number of dwelling units and stories are determined based on number of parking spaces accommodated onsite. Size of dwelling units are same for all scenarios. Source: Strategic Economics and HNTB, 2007.

Strategic Economics tested the viability of Lot Size One using the residual land value method. In this method, the financial models are constructed to solve for a land residual, which is the amount of value left over from a new project after the costs of development are subtracted. If the land

residual is generally on par with recent land sales transactions, then the development scenario is feasible under current market conditions. If the land residual is negative, or well-below recent land sales, then the project is not feasible under current market conditions. The complete methodology is described in Appendix W.

A small, residential, development on a 25 feet by 100 feet lot is financially and physically feasible.

While a small development (i.e. 25 feet by 100 feet) can and does work, as shown in this analysis, development on small lots can be difficult because the limited space severely constrains the variety of options available to the developer. Additionally, developers may be weary of these lots because it is more difficult to achieve economies of scale in the entitlements and permitting process than on a large lot.

6.2.4 Small Parcel Analysis - Lot Size Two: 50 feet by 100 feet

This section examines the feasibility of a development on a 50 feet by 100 feet lot. This analysis focuses only on podium parking because underground parking is spatially infeasible on a lot of this size. This lot can, however, physically support a mixed-use building with residential combined with ground floor retail uses. For this reason, two scenarios were evaluated for this lot size: the first offers a completely residential program, and the second evaluates mixed-use program with retail on the ground floor and second floor residential uses.

Table 6-4: Lot Size Two - Development Scenarios

Residential		Mixed-Use	
Parcel Size (Square Feet)	5,000	Parcel Size (Square Feet)	5,000
Number of Stories	2	Number of Stories	2
Commercial Square Feet	0	Commercial Square Feet	2,000
Residential Units	8	Residential Units	4
Residential Square Feet	9,995	Residential Square Feet	4,998
Parking Type	Podium	Parking Type	Podium
Number of Parking Spaces	11	Number of Parking Spaces	5
Dwelling Units Per Acre	70	Dwelling Units Per Acre	35

Notes: Number of dwelling units and stories are determined based on number of parking spaces accommodated onsite. Size of dwelling units are same for all scenarios.

Source: Strategic Economics and HNTB, 2007.

As in Lot Size 1, the land residual analysis method was used to test the financial feasibility of development on a site of this size. The financial analysis found that development on a lot of this size is physically and financially feasible for both the residential and mixed-use scenarios, but the residential scenario yielded higher land values than the mixed-use scenario. The reason for this is twofold. First, the site cannot accommodate underground parking, thus the inclusion of first floor retail dramatically reduces the number of parking spaces and corresponding residential units that can be contained within the podium parking. Second, rents for the commercial space are significantly less than the revenues that can be achieved from condominium units. In essence, adding retail space to the ground floor removes critical parking that supports residential units and replaces it with a use that generates less revenue.

Although the mixed-use scenario works financially, another consideration is whether the supportable retail space is large enough to be competitive in the market. Again, a 12-foot driveway must be cut into the frontage for access to the podium parking. This leaves a leasable retail frontage of 38 feet and a potential depth of 50 feet. A commercial space of this size could be attractive to boutique retailers, restaurants or cafes. Because of the lack of parking in the retail portion of the development and the boutique nature of the space, this type of commercial use would be most marketable in a retail district with a high-quality pedestrian environment and other complementary uses nearby. Therefore, this mixed-use scenario should only be considered for existing commercial corridors where ground floor residential would be disruptive to the overall character and vibrancy of the street.

6.2.5 Small Parcel Analysis - Lot Size Three: 100 feet by 100 feet lot

This scenario examines the feasibility of development on a 100 feet by 100 feet lot. This larger lot size opens up many possible scenarios, because it is the minimum threshold at which underground parking is physically achievable. As a result, the team conducted sensitivity analysis to test parking configurations, mix of uses, and affordable housing policies. The first set of scenarios, shown in Table 6-5, analyze the financial feasibility of various parking treatments, including underground parking, podium parking, and a combination of underground and podium parking.

Table 6-5: Lot Size Three—Residential Development Scenarios

Parcel Size (Square Feet)	10,000
Number of Stories	4
Commercial Square Feet	0
Residential Units	17
Residential Square Feet	21,240
Parking Type	Podium
Number of Parking Spaces	23
Dwelling Units Per Acre	74

Underground Parking

88	
Parcel Size (Square Feet)	10,000
Number of Stories	4
Commercial Square Feet	0
Residential Units	17
Residential Square Feet	21,240
Parking Type	Underground
Number of Parking Spaces	23
Dwelling Units Per Acre	74

Stacked Parking (Underground & Podium)

Parcel Size (Square Feet)	10,000
Number of Stories	5
Commercial Square Feet	0
Residential Units	32
Residential Square Feet	39,981
	Underground
Parking Type	& Podium
Number of Parking Spaces	42
Dwelling Units Per Acre	139

Notes: Number of dwelling units and stories are determined based on number of parking spaces accommodated onsite. Size of dwelling units are same for all scenarios.

Source: Strategic Economics and HNTB, 2007.

Mirrod Has

The next set of scenarios, shown in Table 6-6, assumes podium and underground parking is constant, and tests the financial feasibility of developing the site as a purely residential development and as a mixed-use development with retail space. This analysis assumed 1.3 parking spaces per residential unit.

Table 6-6: Lot Size Three— Mixed Use Scenario

Mixed Use	
Parcel Size (Square Feet)	10,000
Number of Stories	4
Commercial Square Feet	5,400
Residential Units	16
Residential Square Feet	19,991
Parking Type	Underground
Number of Parking Spaces	21
Dwelling Units Per Acre	70

Notes: Number of dwelling units and stories are determined based on number of parking spaces accommodated on-site. Size of dwelling units are same for all scenarios.

&

Source: Strategic Economics and HNTB, 2007.

In the final set of scenarios, shown in Table 6-7, the team tests various affordable housing regulations for jurisdictions in San Mateo County to determine their influence on the feasibility of a constant residential scenario with podium and underground parking.

Table 6-7: Lot Size Three—Inclusionary Housing Scenarios

Build 15% of Units Affordable		Build 20% of Units Affordable	
Parcel Size (Square Feet)	10,000	Parcel Size (Square Feet)	10,000
Number of Stories	5	Number of Stories	5
Commercial Square Feet	0	Commercial Square Feet	0
Residential Units	32	Residential Units	32
Residential Square Feet	39,981	Residential Square Feet	39,981
	Podium &		Podium &
Parking Type	Underground	Parking Type	Underground
Number of Parking Spaces	42	Number of Parking Spaces	42
Affordable Units	5	Affordable Units	6
Dwelling Units Per Acre	139	Dwelling Units Per Acre	139

Pay In-Lieu Fees (2 scenarios)

Parcel Size (Square Feet)	10,000
Number of Stories	5
Commercial Square Feet	0
Residential Units	32
Residential Square Feet	39,981
	Podium &
Parking Type	Underground
Number of Parking Spaces	42
Dwelling Units Per Acre	139
Tu line for A	\$150,000/
In-neu iee A	affordable unit
In-lieu fee B	\$43,167/unit

Notes: Number of dwelling units and stories are determined based on number of parking spaces accommodated on-site. Size of dwelling units are same for all scenarios.

Source: Strategic Economics and HNTB, 2007.

Development on a lot of a 100 feet by 100 feet lot is financially feasible with podium parking, underground parking, and a combination of both.

The podium parking scenario has a greater value per square foot than the underground parking scenario given the significantly higher cost of constructing underground parking. When podium parking is stacked on top of one level of underground parking, the residual value of the land increases exponentially, and yields the highest residual value of any scenario at \$203 per square foot. This parking configuration allows for a near doubling of the number of parking spaces, and thus units, that the lot can accommodate.

The mixed-use scenario with underground parking is financially feasible, and generates a greater residual land value per square foot than the comparable residential scenario.

In this case, the underground parking allows retail space to locate on the first floor without the resulting elimination of parking spaces that was problematic in Lot Size Two. Because of this, the development can yield a nearly equivalent number of residential units as the single-use development, and simultaneously include retail space in the project. Additionally, the cost per square foot of constructing commercial space is lower the cost for residential construction. Though this economy of scale was not achievable in Lot Size Two (with 2,000 square feet of commercial space), the 5,400 square feet of retail in this scenario is large enough to produce a cost savings.

The stacked underground/podium parking scenario is feasible, but has a lower residual land value than the stacked, residential only scenario.

Again, the podium parking is limited by the presence of retail space and the need to devote frontage to an alleyway, thus resulting in fewer units and fewer square feet of retail space.

The market competitiveness of retail is again a factor in the success of the retail scenarios. This larger lot offers more options for potential retail tenants; however, site-specific evaluation of the retail market is still critical to ensure the viability of the retail space. As with Lot Size Two, retail of this type would be most successful in a retail district with a dynamic pedestrian environment.

6.2.6 Lot Size Three: 100 feet by 100 feet Lot plus Inclusionary Housing

Among the cities included in feasibility analysis, the cities of Millbrae, San Bruno and South San Francisco all have inclusionary housing policies that require a certain percentage of units in most residential projects to be affordable for low-income households. These policies vary significantly across the jurisdictions. Table 6-8 shows a sample of these inclusionary housing policies.

Applicable Project Size	Share Affordable	In-lieu Fee	City
4 units	20%	The entire cost of a unit including land, soft costs, hard costs, etc.	San Bruno
10 units	15%	\$43,167 for all units in the project if in a Redevelopment Area (\$29,600 for outside a Redevelopment Area)	South San Francisco
10 units	15%	\$150,000 in lieu fee per unit for 15% of the units	Millbrae

Table 6-8: Inclusionary Housing Policies - Phase II Study Sites

The team tested the most viable scenario – a 100 feet by 100 feet lot with stacked underground and podium parking – under these inclusionary housing polices to determine how the requirement of building affordable units, or paying an in-lieu fee, affected the financial feasibility of development. The policy that requires the most affordable units (20 percent of all units in developments of four units or greater) was not financially feasible.

Although the development was not financially feasible for the case with the most stringent regulations, that did not hold true across the board. Compliance with policies that require a smaller number of affordable units (15 percent affordable in a project of 10 units or more) was financially feasible on a 100 feet by 100 feet lot with stacked parking. In addition, the developments remained financially feasible when both in-lieu fee polices in Table 5-10 were applied. For the three inclusionary policies tested, the project's residual value of land was higher if the in-lieu fee was paid than if the units were constructed as a part of the project.

The feasibility of this development under these scenarios is wholly reliant on the large number of units made possible by the stacked underground/podium-parking configuration. Without these additional units and the revenue they generate to the project, the application of the inclusionary policies described above would cause the development to become infeasible.

6.2.7 Lessons Learned on Small Scale Infill Development

Incremental land use intensification does work.

On small parcels, developers can achieve high densities at a small scale. Physical and financial analysis shows that projects can achieve densities ranging from 70 to 139 units per acre, or from 4 to 32 units depending on the parcel size. To achieve development of these densities on small parcels, however, public agencies have to take a more proactive approach to encouraging development than they might with a larger parcel.

These densities may even be more palatable at a smaller scale.

While the financial margins are much smaller and the projects can be challenging to build, incremental development is a good way to achieve TOD without large-scale projects. It helps to visualize what these developments might actually look like; for example a four unit development of 70 units to the acre is likely more acceptable to many community members than a much larger development at the same density.

Parking requirements/policies determine maximum allowable development.

The number of parking spaces required on site has a direct correlation with the number of dwelling units and/or the size of commercial space that can be accommodated. Although all development scenarios tested for this analysis maximized the number of dwelling units and commercial square footage, only some scenarios under Lot Size Three reached a height limit of five stories. For commercial developments, a low FAR will result due to the number of parking spaces that are required on-site and maximum allowable building heights may not be achieved.

Land use policies can greatly influence the feasibility of small parcel development.

Cities need to be strategic about land use requirements such as:

- Requiring mixed-use development, because retail greatly affects the financial feasibility and physical constraints of small infill projects;
- Reducing parking requirements and implementing shared parking strategies for retail, ensuring that parking requirements are based on local market conditions rather than national standards, and where appropriate they encourage developers to build at lower ratios over time;
- Negotiating inclusionary housing requirements to target affordable housing funds transit-oriented neighborhoods while enabling local projects to be financially feasible.

Small parcel developers are often local entrepreneurs.

Because the profit margins on small parcel development are relatively low, larger development corporations generally do not consider pursuing projects on parcels that are smaller than two acres. Local entrepreneurs, often inexperienced with development but active in local business growth, are often the main investors in smaller projects. While these types of developers lack the experience and financing resources of larger developers, they benefit from having a solid reputation among community members and an intimate knowledge of the types of uses that might work in a neighborhood.

Cities should plan public amenities especially in transit zones.

High profile TOD projects in the Bay Area, such as the Fruitvale Village and the Ohlone Chenoweth commons, are heralded as examples of successful development because they successfully integrate a mix of uses including affordable housing, commercial, and public space within the surrounding neighborhood fabric. Most high profile TOD, however, is large scale, and thus developers are able to accommodate public amenities and a mix of uses within one project. At a smaller scale, it is much more difficult to incorporate quality public space and other amenities such as retail and affordable housing within a single project through the development process. Therefore, cities that are anticipating small parcel development need to identify where these public amenities are most important, and to coordinate mechanisms for achieving these amenities with incremental development.

When appropriately planned, transit enables cities to concentrate greater levels of development in a small area without increasing congestion or parking needs. One of the major benefits of TOD is known as the "agglomeration effect" that occurs when uses are concentrated in a small area. A greater number of residents, employees, and retailers near transit can support a set of shared public amenities that is less supportable or less utilized in lower density or single use areas. These

amenities might include streetscape improvements, open space and public plazas, public parking lots or structures, and even vibrant retail districts. Development of new infrastructure, incremental density increases, and incremental reinvestment in existing commercial districts can help create this agglomeration effect and stimulate a cycle of reinvestment and small parcel development.

6.3 Land Assembly

One alternative to developing small parcels in isolation is to assemble these into larger parcels whose size makes development more feasible. Many cities, including Millbrae, have found that parcel assembly is as difficult to implement as small parcel development because of reluctance by some property owners to sell or participate in assembly.

Public involvement is necessary for parcel assembly to occur.

There are numerous challenges to assembling multiple contiguous parcels in the private market. These include securing financing for purchasing land, synchronizing multiple property acquisitions, and the increased risks involved in development if even one property deal falls through. Therefore, some involvement by public agencies is necessary.

There are alternatives to eminent domain.

The use of eminent domain by redevelopment agencies is clearly the most high profile means of parcel assembly, but is not a politically acceptable option in many communities. Eminent domain has not been used in the San Mateo County. Alternatives that encourage parcel assembly can include providing low interest loans to developers for the purchase of land, brokering deals between property owners and developers, or simply offering a data clearinghouse on properties that are available for sale.

Many cities are pursuing innovative strategies for brokering unique partnerships.

Recent political trends opposing the use of eminent domain for private development have made it difficult for many localities to help assemble smaller parcels. As a result, cities are discovering new ways to help broker parcel assembly deals without eminent domain. Alternative strategies involve providing a clearinghouse for data on contiguous, for-sale parcels; working with local real estate brokers to become more proactive in negotiating between developers and property owners; and enabling property owners to "option-in" on real estate deals instead of selling their property. These strategies are described in more detail in Section 8.1.5.

6.4 Affordable Housing

Developers are finding that the only way to overcome the many challenges and costs facing transit-oriented development throughout the Bay Area is to build housing units that serve only the highest end of the market. When developers are pursuing higher risk development – by absorbing the additional costs of building on small parcels, or by introducing new housing unit types to an area – they will try to achieve the highest possible market value in order to hedge this risk. For example, the touted, small parcel transit-oriented development in Palo Alto has been possible because developers are offering high-priced luxury penthouse-style housing units. Developers are able to sell housing units at a premium, when they are in a Leadership in Energy

and Environmental Design (LEED) certified, mixed-use building with public space on a 6,000 square foot lot.

With this ongoing dynamic, housing subsidies become especially important to ensure that households of all income levels can afford to live near transit. Establishing mixed-income neighborhoods near transit is key in the long term for a variety of reasons, including the following:

Demand for TOD comes from a wide range of household types and income levels.

By 2030, there will be potential demand for an additional 423,000 homes near transit in the Bay Area. There will therefore be a tremendous market push for increased development near transit, the majority of which will be in the form of infill development. However, this demand will come from a variety of household types and income groups. The CTOD has forecasted that more than half of this demand will come from households earning less than \$75,000 per year. In order to provide housing to the full range of households that want to live near transit, developers and planners will need to find new ways, besides inclusionary zoning requirements, to incorporate housing for low and moderate-income households in the region's transit-oriented neighborhoods. As demonstrated earlier, inclusionary zoning requirements are not financially feasible for small-scale development.

There are economic benefits to accommodating a mix of household types and incomes near transit.

Housing near transit offers a variety of amenities that are particularly beneficial to lower and moderate-income households who have increasing difficulties meeting the cost of living in the Bay Area. A recent report published by the University of California, Berkeley Center for Community Innovation (CCI) outlines the many benefits of creating mixed-income communities near transit in the Bay Area:

"Mixed-income transit-oriented communities combine the separate benefits of TOD and mixed-income communities, while reaping synergistic benefits that come from bringing the two together. By offering truly affordable housing, a stable and reliable base of transit riders, broader access to opportunity, and protection from displacement, mixed-income TOD holds the potential to address the seemingly intractable problems of worsening congestion, rising unaffordability and the growing gap between lower income and wealthier residents in the region."³⁴

One of the key benefits to workers living near transit is a substantially reduced transportation cost. The typical American household spends an estimated 19 percent of its income on transportation, yet households with access to quality transit spend only 9 percent.³⁵

Cities should establish strategies to coordinate spending of affordable housing funds in transit zones.

The team's financial analysis demonstrated that inclusionary zoning policies can be a financial barrier to the success of small parcel development in San Mateo County, but providing affordable

³⁴ Center for Community Innovation, 2007 forthcoming.

³⁵ Center for Neighborhood Technology, *The Affordability Index*, Brookings Institution Press, 2006.

housing near transit is a key element in the creation of successful transit-oriented districts. Given the irreplaceable benefits of providing affordable housing near regional transit, cities should target their affordable housing funds to transit zones in particular, and focus on creating financial packages that help developers create mixed-income developments on large and small parcels alike.

6.5 Parking Management

Among the five cities that participated in Phase II, parking is a special concern for the City of Belmont as they continue to formulate their economic development strategies. Parking has been recognized by local developers as one of the difficulties in developing small parcels or infill projects. In order for Belmont to foster economic development, parking management should be addressed in the downtown and station area.

The Belmont Caltrain Station is a focal point of downtown Belmont commercial district, stretched along El Camino Real, Ralston Avenue, and Old County Road. Although the station area is located central to the downtown core, a large part of the station area is dedicated to surface parking. Many commercial establishments in downtown Belmont provide exclusive off-street parking spaces for their customers. Buildings are often oriented to their parking lots rather than to the sidewalk and streets. Most off street parking lots have little or no landscaping and have no clear pedestrian pathways through them. Thus, the current environment promotes driving to, from and within downtown where traffic congestion has been a concern.

The City of Belmont General Plan and Downtown Belmont Specific Plan recognizes parking is an important issue and supports shared parking, public parking opportunities, and formation of a parking assessment district. Like in Belmont, parking is a major concern for many cities in San Mateo County and other parts of Bay Area whose stations are located in existing urbanized areas.

In many station areas, too much parking is provided.

Parking spaces are increasingly important real estate assets in many communities. Oversupply of parking spaces is not beneficial for a station area that is looking to promote TOD, and is evident in many station areas along El Camino Real. This has often resulted from excessive zoning code parking requirements.

Even when cities have governing documents that recognize the importance of parking management, many cities do not have a proactive parking management program.

Where a parking management program is not available, parking is often regulated only through the zoning code. The zoning code is an inadequate mechanism for managing parking issues because it only addresses the parking needs of one site at a time, instead of looking at parking as a system.

There are many poorly designed parking facilities that discourage pedestrian circulation.

Frequently, surface parking facilities dominate station areas, creating an unfriendly environment for pedestrians. The characteristics of these facilities include a lack of walkways, excessive curb cuts, walls that discourage walking between properties, and inadequate lighting and landscaping. In addition, stores are oriented to parking lots rather than streets.

6.6 Promoting Bicycle Access

In Phase I, many station areas were identified as being located within auto-oriented suburban street networks that posed a challenge to promoting pedestrian access and TOD in general. In the Phase II meeting with the South San Francisco representatives, the project team suggested looking at improving bicycle access as a means to improving non-motorized access to the Caltrain station. Where improving pedestrian access may be difficult and costly, bicycle access may be more feasible depending on the topography of a station area, simply because people can cover more distance on a bicycle.

South San Francisco benefits from having relatively flat terrain connecting Oyster Point and the remaining area east of 101to the main part of the city, though there are some hills on both sides and frequently windy conditions. While South San Francisco benefits from having a BART station and a Caltrain station, commuters who arrive via transit have difficulties getting to their final employment destinations without shuttle services. Furthermore, the city would like to see more economic development in the downtown commercial district resulting from having such a large regional employment base within their city. The U.S. 101 freeway and the railroad tracks are physical obstacles that divide the area east of 101 and the rest of the city, making automobile access to that area the preferred mode for reaching businesses there.

The project team communicated with Genetech's bicycle group president to hear challenges faced by bicycle commuters of the largest employer on Oyster Point. The bicycle group is consists of employees that bicycle recreationally or for commuting purposes. A group of bicyclists regularly commute together to the Genentech campus from San Francisco. Genentech has a Transportation Demand Management Program which supports bicycling and recently completed construction of their annex, which includes a recreational bicycle path along the shoreline, a part of the bicycle network that is in the City's General Plan. Concerns from the bicycle group were mainly related to safety – blind curves, and signals that do not turn green for bicycles (requiring them to run red lights). The representative the team spoke to is eager and willing to work with the City and other bicycle groups to improve bicycling conditions on Oyster Point.

The project team also researched bicycle-sharing programs as a future alternative for promoting bicycle usage around the city. These are described more in the following chapter on recommendations.

6.7 Public Outreach

During the follow-up meetings with the Phase II station area representatives, the project team revisited the significance of community stakeholders' perceptions and their understanding about planning and how it could potentially impact advancing the planning and development process. The value of having an organized public outreach process in support of successful TOD planning efforts includes:

• Establishment of an inclusive, community planning/public participation dynamic between city planners, developers and citizens

- Neutralization of deferred and negative community input from those who feel ignored or underrepresented
- Establishment of a meaningful public education/communication process with stakeholders
- A process that is engaging and involves stakeholders—provides a sense of ownership in the planning process
- Distribution of planning information in a way that is easily understood by using tools that are interactive and user-friendly

Public outreach has been undertaken at varying degrees of effort at the Phase II station areas with respect to recent station area development plans. Redwood City has had the most extensive outreach effort amongst the five station areas with respect to its Downtown Precise Plan.

6.7.1 Stakeholder Groups

Over the past few years Belmont has been actively working with its key stakeholders, such as the City Council, Planning Commission, Redevelopment Agency, developers, business leaders, property owners, the academic community, Arts Commission, community based organizations and others to develop essential planning guides such as the "Peninsula Corridor Plan" published in 2003 (downtown and station area vision plan). This process educated and energized the community and set the stage for the recent presentation of the *City of Belmont's Economic Development Enhancement – Target Site Strategy plan*, which was unveiled in January 2007.

As part of the strategy plan development process, City staff met with the Belmont Redevelopment Agency to review/refine initial site area concepts. At the conclusion of this review process, the City Council Subcommittee on Economic Development recommended proceeding with the preparation of a Request for Qualifications (RFQ) for a targeted site strategy, seeking qualified owner participants and developers. Additionally, the City of Belmont acknowledged that there was a crucial need for them to "define a broader community participation process to involve stakeholders" in this continuing and complex planning process.

7.0 TRANSIT BENEFIT ASSESSMENT

As part of Phase II of the San Mateo County TOD Opportunity Study, Hexagon Transportation Consultants developed travel demand estimates for a land use forecast developed by Strategic Economics that accounts for TOD potential at every Caltrain and BART station in San Mateo County. The purpose of this assessment is to describe the effects on BART and Caltrain system ridership and on transit mode share as a result of these transit-oriented development projects.

This section is organized into a discussion of the transportation network for year 2030; a summary of the TOD Intensive land use forecast; the transit mode share effects of the proposed TOD projects; and the forecast changes in rail ridership associated with intensified TOD.

7.1 Description of Transportation Network

The effects of a TOD Intensive land use scenario on ridership levels and transit mode share was measured for year 2030. The year 2030 transportation network was coded to reflect additional transportation improvements as reflected in the *2030 Regional Transportation Plan* adopted by the MTC. In San Mateo County, this primarily consisted of the various auxiliary lane projects on U.S. 101 and several U.S. 101 interchange projects (Willow Road, University Avenue, Woodside Road). Also included are the expansion of Caltrain service to 172 trains per day and the electrification of the Caltrain line. The extension of Caltrain to the Transbay Terminal was not included in this analysis because it is not in the MTC Regional Transportation Plan for 2025/2030. Given that it is included in neither the "ABAG Scenario" nor the "TOD Intensive Scenario" the effect on transit mode share and ridership is negligible. The transportation network modeled for the No Build Scenario and the proposed TOD Alternative was virtually identical in order to isolate the effect of TOD on ridership and mode share.

7.2 Scenarios

ABAG Scenario

The ABAG Scenario is based on the year 2030 countywide totals of jobs and households specified by ABAG's *Projections 2005*. These projections reflect TOD at some locations such as Caltrain Bayshore, BART Daly City and BART Colma. In San Mateo County as a whole, a total of 400,440 jobs and 260,972 households is forecast by the year 2030; an increase from 2005 of 186,513 jobs and 72,656 households, respectively. Within the Caltrain and BART station areas, ABAG projected an increase of 45,416 jobs and 17,836 households between 2005 and 2030.

It is important to note that ABAG projections for jobs and population are policy-based, development which will not be realized unless cities and other agencies provide incentives or create policies to encourage additional growth. The ABAG scenario represents a large increase in population and jobs over the existing conditions.

Transit-Oriented Development Intensive Scenario

The Transit-Oriented Development Intensive Scenario includes assumptions of potential TOD opportunities not included in the year 2030 forecasts for ABAG Projections 2005. Strategic Economics developed a methodology to estimate additional jobs and households for the transportation analysis zones (TAZ's) surrounding each station. This analysis involved three

steps: identifying major projects or plans already in place in station areas, estimating the additional underutilized land and potential household and employment capacity for remaining areas near all stations, and applying a 15 percent increase in projected growth for TAZ's that include more urban land use patterns, such as business districts.

The intention of the TOD Intensive land use forecast was to estimate the highest level of development potential at each station. This forecast does not replace the ABAG *Projections 2005* as it does not consider how the market for various uses might affect the timeline of new development, nor does it consider how new development near transit stations might reduce or otherwise change growth forecasted for those TAZ's that are not near transit in San Mateo County. In other words, there is no control total for the County associated with the TOD Intensive Scenario, nor does the TOD Intensive scenario net out growth from other areas of the County. It is worth noting that ABAG has included enhanced potential for TOD in its *Projections 2007* forecast. Therefore, once this new projection is incorporated into the regional transportation model, it may be more comparable with *Projections 2005*. Nonetheless, the TOD Intensive Scenario developed for this study provides a reasonable metric for evaluating how TOD might influence ridership levels in the future.

Plans Anticipated at Station Areas

Step one of creating the TOD Intensive Scenario was to estimate the net increase in development that might occur through build out of existing station area Specific Plans, Corridor Plans and other local area planning efforts. Table 7-1 shows the resulting estimates: plans in or near the station areas call for a total of over 6,000 housing units and nearly 20,000 jobs.

The high employment numbers are the most notable features of these plans in aggregate. These numbers support the notion that San Mateo County is not only a bedroom community for workers in San Francisco and the Silicon Valley, but that it hosts a large share of employment itself. Unfortunately, many of the employment centers in the County are not located near transit. Thus, it could be a challenge for these localities to attract the office, retail, and industrial uses that are included in these planning areas.

ABAG 2030 estimates for many of these transportation analysis zones already included forecasts of significant growth. Additionally, the plans rarely encompassed the full transportation analysis zone, leaving room for additional development potential in the TAZ but outside the planning area. Therefore, the numbers shown in Table 7-1 do not reflect the net difference from ABAG *Projections 2005*, nor do they necessarily reflect the total forecast of growth in each TAZ.

In addition to the station areas listed in Table 7-1, Strategic Economics evaluated plans that were not included in this three-step analysis because it was deemed to be more appropriate to include forecasts for these areas in steps 2 or 3. These plans included the Belmont Target Site Strategy, the Colma BART Station Area Specific Plan, and portions of the North Burlingame / Rollins Road Specific Plan that fell within the Broadway Caltrain station area.

Station Area	Plan Name	Total Households	Total Jobs	TAZ's Affected
Bayshore Caltrain Brisbane Baylands Phase I Specific		0	8,249	277
	Plan			
Hillsdale Caltrain	Bay Meadows Specific Plan	1,250	2,375	137
	Amendment - Development			
	Framework Plan			
Millbrae BART/Caltrain	Millbrae Station Area Specific Plan	390	3,152	254, 253
	Illustrative Development Program			
Millbrae BART/Caltrain	North Burlingame - Rollins Rd.	704	261	89
	Specific Plan			
Redwood City Caltrain	Redwood City Downtown Area	2,825	3,170	293, 258, 192,
	Plan			1094, 191
	Kaiser Precise Plan			
San Bruno BART	Housing Element; US Navy Site and	841	918	63
	its Environs Specific Plan			
San Carlos Caltrain	East San Carlos Specific Plan EIR	118	1,754	173, 292
	TOTAL	6,128	19,879	

Table 7-1: Household and Job Estimates from Local Area Planning Efforts

Strategic Economics, Cities of Brisbane, San Mateo, Millbrae, Redwood City, San Bruno, San Carlos

7.3 Findings

Comparison of the Projections 2005 2030 Forecast and the TOD Intensive Build-Out Scenario

Table 7-2 provides a comparison of the jobs and households assumed in ABAG 2030 projections and the TOD Intensive Scenario. TAZ's near the transit areas are expected to experience faster household growth than the County as a whole in both scenarios, but employment growth is still expected to occur faster in TAZ's that are not near transit throughout the County. The TOD Intensive Scenario forecasts an additional 9,052 jobs and 7,320 households could be accommodated near transit at build out.

Table 7-3 compares station area ABAG Projections for 2030 with the TOD Intensive Scenario. These two scenarios are most strongly different at the Hillsdale Caltrain station area, as a result of the anticipated redevelopment of the Bay Meadows racetrack as well as perceived opportunity sites outside of this planning area. Redwood City is also anticipated to have significant change due to its intensive planning efforts, which include the Downtown Specific and Precise Plans as well as plans for the redevelopment of the Kaiser facility with more intensive uses. Planning efforts also account for differences at the Millbrae Station area. Significant differences at the San Bruno BART station are anticipated to occur with the development of the US Naval facility as well as possible long term reuse of larger parcels in the area that are currently in auto-oriented uses.

		T.	AZ's in Transit Are	eas
	ABAG Countywide	ABAG	TOD Intensive Scenario	TOD Intensive - ABAG Difference
2005 Households	261,280	81,564	81,564	
2030 Forecasted Households	305,390	99,400	106,720	7,320
% Growth (2005 to 2030)	17%	22%	31%	7%
2005 Jobs	336,460	199,315	199,315	
2030 Forecasted Jobs	507,090	244,731	253,783	9,052
% Growth (2005 to 2030)	51%	23%	27%	4%

Table 7-2: Additional Households and Jobs Included in ABAG and TOD Intensive Scenario

Source: Strategic Economics and Hexagon Transportation Consultants, 2007.

Table 7-3: Net Change in ABAG (2005 – 2030) and TOD Intensive Scenario (2005 – Build out) by Station Area

	ABAG		TOD Intensive Scenario		Net Difference TOD - ABAG	
Rail Station	Households	Employment	Households	Employment	Households	Employment
Caltrain						
Bayshore	327	1,419	508	2,415	181	996
South San Francisco	181	612	194	612	13	0
San Bruno	1,325	2,368	1,349	2,429	24	61
Burlingame	782	917	794	944	12	27
San Mateo	1,410	1,000	1,467	1,224	57	224
Hayward Park	2,324	1,045	3,448	1,936	1,124	891
Hillsdale	1,657	3,830	3,684	6,810	2,027	2,980
Belmont	782	1,669	811	2,153	29	484
San Carlos	1,100	6,475	1,134	6,597	34	122
Redwood City	3,104	-2,005	4,547	-481	1,443	1,524
Menlo Park	823	2,964	878	3,239	55	275
BART						
South San Francisco	585	3,852	858	3,852	273	0
San Bruno	892	9,382	2,257	9,382	1,365	0
BART/Caltrain						
Millbrae	786	4,773	1,526	6,466	740	1,693

Source: Strategic Economics and Hexagon Transportation Consultants, 2007.

Transit Mode Share Effects

The transit mode share for a pair of zones refers to the percent of total trips for the zone pair that use transit. Since TOD projects were tested at the zone level, transit mode share changes were examined for various zone pairs. A tabulation of transit mode shares for many Peninsula origins in the Caltrain and BART corridors is shown in Table 7-4. Examples of larger increases in transit mode shares are shown for San Bruno BART to San Francisco Financial District (5% to 36%),

Millbrae Caltrain to San Francisco Financial District (30% to 39%), and Hayward Park Caltrain to San Francisco Financial District (36% to 47%). While these increases are large in percentage terms, they also reflect moderately significant volumes of modeled transit trips for individual zone pairs for 2030, in the range of 28 to 66 per day. Examples of zone pairs with moderately significant increases in transit mode shares and relatively low levels of transit trips are for Hillsdale Caltrain to San Bruno Caltrain (8% to 10%), Redwood City Caltrain to San Francisco Mission (81% to 83%), Redwood City Caltrain to San Francisco Richmond (38% to 40%), and Redwood City Caltrain to Stanford (5% to 7%).

A significant amount of research has been done to understand the travel characteristics of TOD in the Bay Area (as well as many other metropolitan areas). The research has tended to emphasize the capture rates of specific TOD sites. While such as comparison is not possible with the travel demand model, because it is based on traffic analysis zones and is not site specific, the transit mode shares associated with individual zone pairs, as shown in Table 7-4, provides a similar indicator. From this standpoint the high mode shares that are forecast with the intensified TOD and the notable increase in mode shares compared to the ABAG scenario provide similar results compared to the capture rates reported in the Bay Area research.³⁶

Table 7-4: Year 2030 Home Based Work Ta	ip Transit Mode Shares: ABAG Scenario versus
"Intensified TOD" Scenario	

				Р	ercenta	ge	# Transi	t Trips
Origin TAZ	Destination TAZ	Place of Origin	Place of Destination	2030 ABAG	2030 TOD	% Change	2030 ABAG	2030 TOD
256	422	San Bruno BART	SF Financial District	4.5%	36%	700%	3	66
63	422	San Bruno BART	SF Financial District	43%	63%	47%	11	36
89	422	Millbrae Caltrain	SF Financial District	30%	39%	30%	14	28
129	422	Bay Meadows Caltrain	SF Financial District	36%	47%	31%	18	60
148	256	Hillsdale Caltrain	San Bruno Caltrain	8%	10%	25%	3	5
258	423	Redwood City Caltrain	SF Financial District	66%	74%	12%	40	76
1094	451	Redwood City Caltrain	SF Mission/Noe	81%	83%	2%	5	7
258	691	Redwood City Caltrain	SF Richmond	38%	40%	5%	5	10
258	756	Redwood City Caltrain	Stanford	5%	7%	40%	2	5

Source: Hexagon Transportation Consultants, 2007.

Changes in Ridership

The ridership was examined for Caltrain and BART stations for both the ABAG Scenario and the TOD Alternative. The year 2030 forecast ridership for Caltrain ("ABAG Scenario") is 99,934 boardings (ons) and alightings (offs), compared to 56,787 ons and offs counted in 2005. Since ons and offs are tabulated at both ends of the Caltrain trip, and for both directions, this essentially reflects 24,980 riders by 2030 compared with approximately 14,200 riders in 2005. The 2030 "ABAG Scenario" ridership forecast reflects both the electrification of Caltrain and expansion of service from 60 trains in 2005 to 172 trains in 2030. The Caltrain extension to Transbay Terminal

³⁶ Lund, Cervero, and Wilson, Travel Characteristics of Transit-Oriented Development in California, January 2004.

was not assumed for either the ABAG Scenario or the intensified TOD Scenario. Service headways on BART were assumed at 7.5-minute headways to San Francisco International Airport, San Bruno, South San Francisco, and Colma; 90-minute headways to Millbrae; and 5.5minute headways at Daly City. This service assumption and operating plan is consistent with the current assumption within the MTC travel demand modeling system.

Total Caltrain ridership for the proposed TOD Alternative is approximately 101,460 boardings and alightings; an increase over the ABAG Scenario of 1,520 boardings and alightings. All station ridership estimates are based on unconstrained parking.

Notable ridership changes on Caltrain occur for the Redwood City, Hillsdale, Millbrae and San Francisco (Fourth & King) stations with the implementation of the TOD projects described above. The ridership changes resulting from additional TOD assumptions at the BART stations in San Mateo County are less significant. Since many BART trips could have one trip end at a non-San Mateo County station, the change in BART ridership is not directly comparable with the change in Caltrain ridership (These ridership changes are summarized in Table 7-5).

The year 2030 forecast ridership for San Mateo County BART ("ABAG Scenario") is 51,023 ons and offs, compared to 44,969 ons and offs counted in 2005. Since ons and offs are tabulated at both ends of the BART trip and for both directions, this essentially reflects 12,755 riders by 2030 compared with approximately 11,242 riders in 2005. The 2030 "ABAG Scenario" ridership forecast reflects the expansion of service frequencies to the BART SFO segment in 2030.

Total BART ridership in San Mateo County for the proposed TOD Alternative is approximately 51,538 boardings and alightings; an increase over the ABAG Scenario of 515 boardings and alightings. All BART station ridership estimates are based on unconstrained parking.

Station	2005 Ons + Offs	2030 ABAG Ons + Offs	2030 TOD Intensive Ons + Offs	2030 TOD-ABAG Change Ons + Offs
Caltrain				
Redwood City	2,886	4,510	4,690	180
Hillsdale	3,013	7,552	7,922	370
Hayward Park	852	620	822	202
Millbrae	3,035	3,330	3,400	70
SF (4th/King)	11,777	29,740	30,330	590
All Caltrain	56,767	99,934	101,456	1,522
BART				
Millbrae	6,655	8,268	8,535	267
San Bruno	3,713	5,424	5,529	105
South SF	5,492	6,215	6,290	75
BART County	44,969	51,023	51,538	515

Table 7-5: Rail Station Ons and Offs: Existing, ABAG and TOD Scenarios

Source: Hexagon Transportation Consultants, 2007.

7.4 Conclusions

The rail stations that appear to have the highest ridership benefit from the proposed TOD projects are also Baby Bullet stations in many cases. BART stations show modest increases in ridership with intensified TOD. In addition, for the ABAG Scenario, the "Baby Bullet" stations show the highest forecast growth while stations adjacent to "Baby Bullet" stations show forecast ridership declines. This suggests that while the travel demand model appears to be somewhat sensitive to the effect of transit-oriented development, it is also quite sensitive to high-quality service implied by express trains.

Another observation with respect to the ridership benefits of proposed TOD projects is that they are generally higher for mixed-use developments. Overall, intensified TOD appears to have significant positive effects on transit mode shares from zones surrounding rail stations. Parking costs are recognized as an important aspect of influencing transit ridership: In this study, parking costs were not varied under the Intensified TOD scenario. The ridership effects of Intensified TOD and increased parking costs could be significantly different.

8.0 RECOMMENDATIONS AND ACTIONS

Based on the research and analysis that was conducted in Phase II of this study, the project team developed recommendations and actions to 1) promote incremental infill development, 2) manage parking, 3) improve and encourage bicycle access, and 4) establish a public outreach process.

8.1 Promoting Incremental Infill Development

This section provides recommendations for policy and implementation techniques that cities in San Mateo County can use to support higher density incremental development near transit. The following sections describe recommended techniques in detail, based on a review of the existing literature and other information on best practices for infill development in the Bay Area.

Most of the literature has been written with a general focus on promoting smart growth, and thus it identifies incentives to promote infill development regardless of the proximity to transit. Generally speaking, many of the policies described below will be particularly useful in areas near transit because the common concerns associated with new density and infill development – such as increased congestion and parking concerns – can be alleviated through the benefits of TOD, particularly a reduced auto dependence by new local residents or employees who can take transit instead.

8.1.1 Establish Parking Management Programs

Improving parking policies can hold many benefits for urban districts, but this section will focus on those parking policies that are recommended to encourage infill development. These include establishing reduced parking ratios, allowing developers to pay an in-lieu parking fee, and providing publicly shared parking for retail. All of these parking policies should be pursued with an understanding of what the current and future market will bear in terms of reduced or shared parking availability.

Parking Ratios

Minimum Parking ratios are often based on national general standards provided by organizations such as the Institute of Transportation Engineers (ITE), and as a result they can be higher than what local residents and businesses actually need, particularly in areas well-served by transit. Between land assembly and regulatory barriers, small parcel development faces many challenges of which parking is generally the greatest. A small change in the parking ratio can make a project physically, or financially feasible.

Currently many cities in San Mateo County require 1.5 to 2.0 spaces per dwelling unit. Recommended parking minimum for infill supportive zoning is 1.0 space per unit.³⁷ As need for car ownership depends on access to transit access and commercial amenities, station areas including commercial cores can have lower minimum parking ratio.

³⁷ Wheeler, Stephen. "Infill Development in the Bay Area: Current Obstacles and Responses," November 2001.

In-Lieu Fees

With appropriate urban design, areas near transit should be able to support reduced parking ratios, but developers or tenants may be slow to adjust to lower parking ratios. Cities can plan ahead and help encourage developers to adopt reduced parking ratios by offering an in-lieu fee option that developers pay instead of building parking. This mechanism allows developers to weigh the benefits of reduced parking (such as achieving increased densities on a site or making a project feasible), with the costs (such as difficulty finding tenants, or accepting lower rents or sales prices for units or retail space without the parking amenity). This also allows parking to be centralized and publicly shared, which cities can use in combination with other policies such as shared parking or "park once" strategies.

Innovate Parking Strategies

Innovative parking solutions can be effective for meeting parking needs on small parcels. It may also be applicable to the redevelopment of an existing building where parking is not provided on site. Innovative technologies described below are appropriate for regular users, such as residents and commuters.

- Lifts vertically stack two to three cars. This system may use underground space if ceiling height is limited. Lifts can be installed inside or outside of the building.
- Combination lifts provide a combination of vertical stacking and lateral sliding technology. The combination lifts stack two to three cars vertically.
- Sliding platforms do not involve vertical stacking, but lateral or longitudinal sliding technology as illustrated in Figures 8-1 and 8-2. The sliding platforms allow cars to double-park in a parking lot, maximizing parking supply.
- A turntable may be installed where there is insufficient space to make a turning maneuver.







Figure 8-2: Sliding Platform -Longitudinal

For More Information:

Wohr Parking. "Project Examples" Access online at http://www.woehr.de/en/projekte/index.php

Shared Parking

Based on interviews with developers, shared parking for retail space is generally a widely accepted and encouraged parking management strategy in San Mateo County's downtown districts. The key to making shared parking work is to require the participation of all new mixed-use and retail development in a pedestrian-oriented commercial district. In combination with an in-lieu parking fee or parking assessment district, this strategy will enable the city to generate enough money to build a shared parking lot or structure. Additionally, this strategy ensures minimal disruptions of pedestrian space with parking or curb cuts.

Cities may require future developers/development owners belong to a Transportation Management Association (TMA), which will be dedicated to achieving reductions in traffic congestion, improving mobility and air quality, and educating employers and their employees about transportation alternatives. Cities could implement shared parking strategy through (TMA) as well as other measures parking and traffic related measures.

Palo Alto establishes the exact price of its in-lieu fee to reflect of the cost of designing and building a new space, and updates it every year to echo changing construction costs. Palo Alto has also established a parking assessment district in its downtown to ensure that in-lieu fees collected within the downtown district stay there and benefit local property owners and tenants. The city is also allowed to proactively build new parking within the district and reimburse itself with in-lieu fees collected later. Palo Alto has had this strategy in place since the late 1990's and has since funded multiple public garages that support its downtown commercial establishments by offering the first three hours free. As a result, shoppers in downtown generally park once and shop along the length of University Avenue.

For More Information:

Shoup, Donald. The High Cost of Free Parking. Chicago: Planners Press, 2005.

Wilbur Smith Associates, "Developing Parking Policies to Support Smart Growth in Local Jurisdictions: Best Practices." Prepared for Metropolitan Transportation Commission. Access online at http://www.mtc.ca.gov/planning/smart_growth/parking_study.htm.

Wilbur Smith Associates, "Reforming Parking Policies to Support Smart Growth: Toolbox/Handbook: Parking Best Practices & Strategies for Supporting Transit Oriented Development." Prepared for Metropolitan Transportation Commission, 2007. Access online at http://www.mtc.ca.gov/planning/smart_growth/parking_study.htm.

8.1.2 Use Plans and Code to Guide Development

<u>Specific Plan</u>

A specific plan articulates detailed design and land-use regulations for a certain geographical area. Specific plans must conform to a city's General Plan, but the requirements for what is included in a specific plan is otherwise fairly flexible. Thus, it can be tailored to promote certain policies such as transit-oriented development, and identify key opportunity sites for infill development. Specific plans encourage small parcel development by facilitating a visioning process among all community members for what they would like to see in an area. In turn, developers face less ambiguity about what is allowed and not allowed, resulting in time and money savings if they are able to easily work through the design guidelines established in the plan and be assured that the local neighborhood has already been brought on board. The public also benefits from having expressed a vision for a district before undesirable proposals are brought forth to the City Council or other decision-making bodies.

Precise Plan

A precise plan takes a specific plan to an even more fine-grained level, defining the exact vision for development from street to street including design guidelines, heights, and setbacks. The greater level of community visioning and outreach associated with a precise plan further reduces the risk to developers of small parcels. When these developers follow the guidelines established by the precise plan, they can create development projects that adhere to the community's vision, and that thus require less review in the public hearing process. City staff is able to crosscheck development proposals against the precise plan and determine, without public hearing, whether a project offers an acceptable design and mix of uses.

Form-Based Code

A form-based code is similar to a specific plan, but focuses more on controlling physical form than uses or densities within a designated geographical area. All form-based codes contain a regulating plan that defines building form and architectural standards. Form-based codes may still contain more conventional types of regulation such as land-use restrictions and height limits, but physical building design is always the primary focus. Form-based code can also be used to guide development to provide public amenities, such as sidewalks, street furniture, plazas, and pocket parks on a portion of land zone for commercial development.

For More Information:

Form-Based Codes Institute, Access online at http://www.formbasedcodes.org.

8.1.3 Implement Infill-Friendly Zoning Policies

Zoning codes can often work against infill development. Any number of restrictions, from height limits to parking minimums can make a project physically and/or financially infeasible. If denser, more pedestrian-oriented buildings are allowed, infill-development will be more likely to occur. Table 8-1 summarizes typical zoning in San Mateo County and infill-friendly zoning policies.

For More Information:

Wheeler, Stephen. Infill Development in the San Francisco Bay Area: Current Obstacles and Responses. Paper presented at the Annual Conference of the Association of Collegiate Schools of Planning. November 2001.

	Typicial current practice	Infill alternative		
Minimum lot sizes	6,000 sq. ft. or more	2,000-4,000 sq. ft., if any		
Maximum lot sizes	Rarely regulated	5,000 sq ft. for single-family homes in many infill locations		
Dwelling units allowed per lot	Most urban land zoned for single family detached housing	Allow second units on existing lots; allow multiple units on vacant lots in single family districts if building design respects neighborhood context		
Allowable densities, downtown areas	Many suburban cities specify maximum residential densities of 20-40 dwelling units per acre even in high-density zoning districts	Eliminate maximum densities; rely on height, bulk, and/or design restrictions instead. Institute minimum densities of 20-30 dwelling units/acre.		
Allowable densities, residential areas	Many suburban cities have maximum residential densities of as little as 1-4 units per acre in low-density zoning districts	Establish minimum residential densities of 8-10 units per acre for new single family development and 20 units per acre for multifamily development		
Building height, downtown areas	Often 2-3 stories maximum even in town centers; no minimum.	At least a 3-5 story maximum in downtowns and neighborhood centers; a 2-3 story minimum		
Height restrictions, residential areas	2 1/2 stories or 30 feet maximum	At least 3 1/2 stories or 40 feet maximum		
Lot coverage	Often less than 50 percent of the site maximum	No maximum if parks and other public open spaces are nearby		
Floor area ratio	Often .5080 maximum in downtown locations	At least 1.0-2.0 maximum, 0.5 minimum in downtowns, or use height limits instead.		
Front setbacks	Often 20-40 feet minimum except in downtown areas; no maximum	0-10 foot minimum in many areas; consider adding maximum.		
Side setbacks	Often 5-15 feet minimum	Five feet minimum; allow zero-lot-line construction with appropriate design		
Lot widths	Some cities require minimum widths of at least 50 feet for single family housing, 70 feet for duplexes	No minimum		
Mixture of land uses	Only homes, stores, or workplaces allowed across large areas of cities (Euclidean zoning)	Allow additional shops and offices near neighborhood centers, infill housing and shops within office parks, infill housing and offices along strip commercial streets		
Mixed use buildings	Not permitted most places	Allow mixed-use buildings in downtowns, within neighborhood centers, and along arterial strips		
Secondary units	Prohibited or subject to conditional use permits	Allowed as of right in single family residential districts		
Parking Minimum	Varies widely. Minimum requirements range from 1.0 space per unit in San Francisco* and Berkeley to 2.3 in Dublin and 2.5 in Los Gatos.	1.0 space per unit; no requirement in core transit areas. Institute maximums in certain locations. Encourage developers to charge for parking to reduce demand, and to provide car-sharing services within large projects. Allow space-saving techniques such as		

Table 8-1: Typical Zoning in San Mateo County vs. Recommended Infill-Supportive Zoning

Note: *In large part of the City of San Francisco, one parking per dwelling unit is required. However, in some dense areas of the city, one parking space per four dwelling units is required.

stacked parking and tandem parking.

Source: Wheeler, Stephen. "Infill Development in the Bay Area: Current Obstacles and Responses," November 2001.

Chapter 8

8.1.4 Encourage Local Entrepreneurs to Become Involved in Local Development

Identify the major local players in your community

City staff are likely already familiar with many of the local entrepreneurs who might be interested in investing in small parcel development. Some may have already invested considerably in rehabilitating existing buildings in areas near transit stations, and could have their own notions of what is needed to encourage development. Staff should consider holding focus groups and other events to understand the directions that local entrepreneurs are interested in taking with development near transit. This should be part of a comprehensive outreach plan.

Provide detailed market analysis to identify local market strengths

Local entrepreneurs may initiate development based on an experienced guess about the local market rather than by completing a professional market analysis. The city can help reduce the risk to entrepreneurs by completing a market analysis to evaluate the potential for various uses and assess the revenue that new development could bring in from rents and sales prices. A station area market study could also be used as supporting information to help entrepreneurs secure loans for development.

8.1.5 Assemble Parcels for Private Development

One of the most challenging aspects of infill development is assembling small contiguous parcels of land into a larger package that can more easily accommodate new uses. If developers lack enough time or funds for land acquisition, or property owners are unwilling to sell, infill projects can be hindered before they begin.

Public Land Acquisition and Eminent Domain

Cities can assist with land assembly in a variety of ways. The most common technique is to use public funds to buy contiguous small parcels, make necessary property and infrastructure improvements, and then repackage and sell to a private developer as a single larger parcel. Simply investing the time and money in acquiring multiple adjacent parcels can provide enough public assistance to make a project feasible, even if a developer then pays market values for the land package. In cases where a neighborhood is largely disinvested or a site is particularly contaminated, additional incentives such as land cleanup or development subsidies are necessary to attract a developer.

Public land acquisition has its limitations and in many cases is not a reasonable solution for assembling smaller parcels. Property owners are sometimes unwilling to sell because the present market value does not reflect their own perceived value of their property. This difference in perceived value can occur for a variety of reasons: because an area is disinvested and property values are low; because property owners anticipate that they should benefit from the new value that new development would bring; or because property owners place a personal value on their land that is distinct from the market.

Public agencies face additional barriers since the *Kelo v.s. City of New London* case brought eminent domain to the forefront of the property rights debate. In this now famous land use case, a residential property owner sued a local agency for using eminent domain to buy their property in order to transfer it to another private owner who would develop it with new, private uses. The plaintiff argued that this violated the requirement that eminent domain be used solely for a "public use." The court found in favor of the public agency on the basis that the land transfer was intended to benefit the public through economic revitalization of the larger area, but the case has led to a larger movement to restrict the use of eminent domain, and has resulted in numerous statewide initiatives including Proposition 90, a failed statewide ballot initiative in November 2006.

Alternatives to Eminent Domain

One clear alternative to implementing eminent domain is to offer property owners a sales price that exceeds the market value of their property. Clearly, this is a difficult option given the general need for public agencies to show fiscal responsibility, and the general fiscal crises faced by many localities in California.

Researchers Amnon Lehavi and Amir Licht have developed a theoretical alternative that could compensate property owners when land values are expected to rise greatly as a result of new development. They propose a model where property owners can either choose to "cash out" immediately, or buy into a Special-Purpose Development Corporation (SPDC). Under this system, a city would acquire land using eminent domain, but then transfer special rights to a SPDC, such as a 99-year ground lease for \$1. Property owners could then buy into the SPDC, with shares equivalent to the amount they would have received had they "cashed out." The SPDC acts as a separate entity to negotiate land rights with potential developers. If multiple developers are interested and the eventual selling price is high, all shareholders of the SPDC benefit. Once the land rights are sold, the net proceeds are divided amongst the shareholders, and the SPDC dissolves. While this tool is untested, it theoretically provides a just method of compensating property owners when their land may be seized in the interests of economic development and intensification.

For More Information:

Lehavi, Amnon and Amir Licht, "Squaring the Eminent Domain Circle: A New Approach to Land Assembly Problems." *Land Lines*. Volume 19, Number 1, January 2007. Pp. 14-19.

8.1.6 Help Private Developers with Land Assembly

Offer an initial financing package for the purchase of land.

When public land acquisition is simply not an option, there are other mechanisms that local governments can use to help private property owners assemble multiple parcels for development. Many governments currently offer tax reductions, grants, and loans aimed at underwriting the costs of construction and infrastructure for a variety of purposes. One of the major challenges to acquiring multiple parcels in the private market is that lenders are unwilling to absorb the risk on a loan for development with an undefined time frame, yet developers cannot provide reassurances about the behavior of other property owners when they are balancing multiple land negotiations. A local government can help absorb this risk by offering a low or no interest loan for land

purchases. Once parcels are assembled for development, this loan would be replaced with a standard bank loan, thus freeing up public funds for another project.

Establish and maintain a clearinghouse of information about available parcels.

Developers wishing to assemble parcels for development should not be stymied by a lack of information about which parcels are available. However, the information provided by listing services is not always complete. In many situations, property owners are concerned that if their listings sit on the market for extended periods of time, there may be speculation by interested parties that their properties are undesirable for some reason. Local government staff may have a better familiarity with property owners who would be interested in selling if the right developer comes along. Local agencies can take advantage of the intimate knowledge gathered by their own staff in order to create a clearinghouse of information. As staff encounters interested developers, they can direct them to interested property owners.

Work with local real estate brokers to coordinate land deals.

A new plan in place – specifically one that "upzones" many parcels to allow higher densities or higher value uses – can generate new energy in a local real estate market. Some cities have found that local real estate brokers, who are familiar with neighborhood market conditions and who know developers and property owners, can be helpful in negotiating deals among newly interested property owners and developers.

Maintain a database of vacant and underutilized parcels.

The process of creating a specific plan involves identifying all of the possible "opportunity sites" for future development. "Opportunity sites" are those parcels that a city can expect to transition to new uses in the short to mid term, because they are currently underutilized relative to the rest of the specific plan area. Techniques for identifying these sites vary, but generally include parcels that are vacant or used for surface parking, parcels with a low assessed improvement value relative to the land value in the area, and parcels with uses that are becoming obsolete in the current real estate market.

Cities that do not have the financial resources to complete a specific plan can still go through the relatively inexpensive process of identifying an area's opportunity sites. This process can help inform city staff and real estate brokers about opportunity sites that could potentially be assembled by developers, even if property owners have not yet expressed an interest in selling or reusing their parcels.

8.1.7 Target Transit Zones for Affordable Housing and Mixed-Income Development

Assemble affordable housing finance packages for mixed-income development

Transit offers significant opportunities to provide lower income households with transportation cost savings and improved access to regional jobs. Thus, cities should target affordable housing resources towards transit zones with the goal of offering TOD for all household types and income levels. Given the challenges of accommodating inclusionary units on small parcels, it is particularly important for cities to create packages of funding from other local affordable housing finance sources in addition to in-lieu requirements.

8.1.8 Seek Financial Resources for Infill Development

Proposition 1C

In 2006, California state voters approved Proposition 1C, known as the "Housing and Emergency Shelter Trust Fund Act." Of the \$2.85 billion in bond funds that will be leveraged through this proposition, \$300 million will fund grants and loans to local jurisdictions, transit agencies, and developers throughout California in order to encourage more housing near transit. In the Bay Area, a coalition of regional agencies, including ABAG, MTC, Bay Area Air Quality Management District (BAAQMD), and San Francisco Bay Conservancy and Development Commission (BCDC), are proposing to distribute funding through the "Focusing Our Vision" (FOCUS) program. Under the FOCUS program, local governments in the nine county San Francisco Bay Area are invited to apply for regional designation of an area within their community as a priority development area. Grants and loans will go to projects that increase transit ridership, reduce auto trips, and are located in infill areas. In addition, \$850 million from Prop 1C is delegated to fund infrastructure improvements in urban areas in order to make infill development a more attractive option.

Proposition 84

Proposition 84 was a statewide ballot initiative also approved in November 2006 with a focus on protecting California's natural resources. The majority of this \$5.4 billion initiative is targeted towards flood control and other natural resource conservation projects. However, \$580 million is directed toward projects in urban communities, of which \$90 million is designated for planning grants and incentives to encourage infill development and to reduce automobile use. As with Proposition 1C, the allocation of these monies is still in the planning stages.

C/CAG Housing Incentive Program

The C/CAG offers funds to local governments in order to facilitate high-density housing built along El Camino Real. The final outcomes expected will be the actual construction of new housing, and commercial developments, and complementary roadway, bicycle, and pedestrian improvements. Jurisdiction that participate in the planning process and complete a planning document for their entire portion of El Camino Real will then be eligible to apply the C/CAG Transit Oriented Development Housing Incentive Program. Density must be at least 40 units per acre, and agencies only receive money only construction has begun.

Transportation for Livable Community Program

MTC administers Transit for Livable Community (TLC) as a grant program to fund communityoriented transportation projects based on project merit. Although this grant does not directly fund TOD or infill housing projects, it promotes housing near transit. The TLC grant program funds planning and infrastructure improvements with the goal of promoting TOD.
Policy Link, "Infill Incentives." http://www.policylink.org/EDTK/Infill.

Robinson & Cole, LLP. "Best Practices to Encourage Infill Development," prepared for the National Association of Realtors, December 2002. http://www.realtor.org/smart_growth.nsf/docfiles/infilldevelopment.pdf/\$FILE/infilldevelopment. pdf

8.2 Managing Parking

As discussed in the previous section on promoting infill development, parking is more than simply providing spaces for cars. Establishing an effective parking policy is an essential component for creating vibrant downtown areas that support economic redevelopment and transit-oriented development. Managing both parking supply and parking demand establishes a necessary balance between providing too much parking and not providing enough parking to meet community needs. Too much parking (especially surface parking) wastes valuable land resources, distorts the urban form, encourages automobile dependence, and increases the cost of new development. Not providing enough parking supply limits economic growth and contributes to increased traffic congestion. Parking management programs can benefit any city and its residents, business owners, employees, as well as transit agencies.

The City of Belmont has prepared an Economic Development Strategy for the downtown area, which identifies key opportunity sites for redevelopment. It would be beneficial for Belmont to develop a parking management strategy that proactively manages the parking supply and supports a more pedestrian-friendly environment that encourages people to park once and walk. While parking demand may not be a concern at the present time, the high land values in Belmont will eventually result in opportunities to redevelop existing surface parking lots for more productive uses, which means that parking supply will need to be consolidated in strategic locations. Traffic congestion is a concern, and therefore, policies that promote an environment that is conducive to walking and bicycling, will help to reduce the demand for auto trips in a downtown area that is small enough to get around on foot.

The following recommendations are ones that Belmont should consider, as well as other cities that do not have a parking management strategy in place. These recommendations are in addition to the parking strategies that are associated with encouraging infill development.

8.2.1 Monitor Parking Supply and Demand

The first step in parking management is preparing an inventory of off-street and on-street parking supply and monitoring demand (occupancy). This initial data collection effort should also record parking time restrictions, fees, and permitted areas. Parking occupancy data should be collected during weekday and weekend peak periods on a regular basis (i.e. every quarter, six months or annually) for each block within the area of interest. Peak periods may differ slightly by the land use mix, so it may take some time to establish the most appropriate survey time period for each station area. By analyzing peak period activity, staff can assess whether there is enough capacity to handle parking needs when normal demand is at its highest. City staff can later use this data to formulate parking policies that aim to achieve an appropriate balance between supply and demand if the observation is that parking is being underutilized, or that there is not enough parking.

Another important aspect of the survey is obtaining parking turnover rates. Generally, parking demand comes from three sources -1) residents who typically park overnight, 2) employees and long-term visitors who park during the daytime on weekdays, and 3) short-term visitors who park for a couple of hours. In areas with single dominant land use types, parking needs generally fall into one of these three categories. Where a mix of land uses patterns are present, collecting information on parking turn over rates will be helpful in formulating policies, such as time restrictions and parking fee to ensure that all three types of parking needs are being met.

8.2.2 Periodically Update Parking Policies

To meet the different types of parking demand mentioned above, it is recommended that cities provide a combination of long-term and short-term parking spaces in station areas and downtown cores. Long-term and short-term parking should be located and priced differently.

Employee and long-term parking should be located in the periphery of the downtown core /station area, while short-term parking should be located at the core of the downtown core/station area, allowing people to park once and walk to multiple destinations. Encourage high turn-over for on-street parking spaces in the downtown core through pricing and time limits, especially in front of retail and service businesses, which attract many customers (i.e. coffee shops, restaurants, dry cleaners). This could be achieved by charging a higher rate for premium spaces and a lower rate closer to the periphery of downtown core. Where



Figure 8-3: Downtown Redwood City Parking Prices

there is high-quality transit access, fewer long-term spaces are necessary since commuters can generally take advantage of frequent commute period service. Long-term parking should be priced higher than the cost of using transit, if the objective is to encourage commuters to take transit instead of driving.

In many cases, on-street parking is enforced between 8 a.m. and 6 p.m. on Mondays through Fridays. This is appropriate for an area predominantly occupied by offices, where most people work between 8 a.m. and 6 p.m. However, areas with heavy concentrations of restaurants, entertainment and retail uses may have a different peak in parking demand. Thus, of the time limits for parking should be reviewed periodically, especially in a redeveloping area where the mix of uses are changing. As different parking rates and time restrictions may be confusing to visitors, providing a parking map with parking restrictions and fees on city's website is desirable. As shown in Figure 8-3, City of Redwood City provides a map illustrating various levels of parking rates on its website. Drivers will make decisions about where to park given their expected trip duration and willingness to walk.

Cities need to conduct parking occupancy surveys periodically and adjust the rates and hours of parking restrictions accordingly. When the occupancy rate is higher than 85 percent, parking rates should be adjusted higher to lower demand and make more spaces available, which is the policy for downtown Redwood City. ³⁸ If the occupancy rate is below a predetermined occupancy, parking rates may be adjusted lower.

For more information on updating parking policies:

Shoup, Donald. The High Cost of Free Parking. Chicago: Planners Press, 2005.

Litman, Todd. *Parking Management: Strategies, Evaluation and Planning*, Victoria Transport Policy Institute, April 2006.

City of Redwood City Redevelopment Agency, Downtown Parking, Access online at http://www.redwoodcity.org/cds/redevelopment/downtown/parking.html

City of Redwood City, City Code, Access online at: http://ordlink.com/codes/redwoodci/index.htm

8.2.3 Implement Parking Policies that Encourage Desired Outcomes

Create Permitted Parking

Parking management programs should address both resident and non-resident parking needs. Some cities, such as Colma and Belmont, have residential permit programs which restricts onstreet parking in residential areas so that non-residents can only park for a short-period of time. This is a popular solution in areas where residents are negatively impacted by adjacent commercial districts or other activity centers.

Establish a Parking Benefit District

The purpose of a parking benefit district is to use available parking and generate revenue for improvements within the district. The parking benefit district differs from conventional permit districts in two important ways. In a parking benefit district, non-residents can park on streets for fees by purchasing a daytime parking permit in advance, while residents park for free. The revenue from permit sales is designated for public improvements, such as sidewalk improvements and landscaping, in the district.

³⁸ Shoup, Donald. *The High Cost of Free Parking*. Chicago: Planners Press, 2005. City of Redwood City, City Code, Chapter 20 Article VII Section 20.120.

A city needs to conduct parking occupancy surveys periodically and sell permits only where certain level of vacancy is maintained. A parking benefit district is appropriate for a station area or commercial district where a nearby residential area has additional capacity to absorb overflow parking.

For more information on a parking benefit district:

Shoup, Donald. The High Cost of Free Parking. Chicago: Planners Press, 2005.

Adopt Parking Facility Design Guidelines

In a typical suburban auto-oriented commercial district, each building provides its own independent parking lot on site. When these parking facilities are not connected or occupy a large surface area at the ground level, a visitor who is going to multiple destinations is likely to drive from one parking lot to the next, creating more traffic, while also increasing the demand for more parking at each site. By integrating parking facilities into the urban fabric, and reserving the street level for more productive uses, people will be more likely to park once (or not drive at all) and walk to multiple destinations. Design guidelines can help create high quality parking facilities that are tucked behind other uses, which will regulate the number and location of curb cuts, and include landscaping, pedestrian access, lighting and screening requirements. Multiple curb cuts along sidewalks interrupt pedestrian movement, especially for persons with limited mobility, and can also limit the quantity of on-street parking spaces. Shared driveways should be encouraged where such an alternative is feasible.

Streamlining the design review process will also facilitate the creation of higher quality parking facilities. A Design Review Board may evaluate aspects specified in the parking facility design guidelines and forward their recommendations to the City Council for their approval of a project.

For more information on parking facility guidelines:

- City of Palo Alto, Draft South El Camino Real Design Guidelines, May 2002, Online Access at: http://www.city.palo-alto.ca.us/planning-community/documents/el-SECRDGMay02_3.pdf
- City of Saratoga, Final Draft Saratoga Sunnyvale Road Gateway Design Guidelines, June 2002, Online Access at: http://www.saratoga.ca.us/pdf/Saratoga%20Design%20Guidelines.pdf
- City of Snohomish, Design Standards and Guidelines (Outside the Historic District), April 2004, Online Access at: http://www.ci.snohomish.wa.us/pdfs/DesignStandards.pdf

Create a TOD Overlay District

A TOD overlay district (i.e. ½-mile radius of a transit station) encompasses one or more underlying zoning districts, and imposes additional or alternative requirements by the underlying zoning. The TOD overlay district typically includes TOD compatible land uses, reduced parking requirements, parking facility design, bicycle parking requirements, minimum and maximum building heights, and other design standards. It is a comprehensive approach to promote TOD by creating additional or alternative requirements.

Reduced parking requirements within a TOD overlay district will promote small scale TOD and infill development. This assumes that uses can share parking supply, thereby reducing the total number of spaces required in the district. By limiting the oversupply of parking spaces, the overlay district allows new development to contribute to the creation of a vibrant, mixed-use district, that is pedestrian and bicycle friendly. Currently, cities in San Mateo County typically require multi-family housing developments to provide two parking spaces per dwelling unit. Alternatively, a TOD overlay district may require only one space per unit and allow additional spaces to be sold or leased separately.

One of the concerns raised by the interviewed developers was uncertainty in obtaining project approval. By creating a TOD overlay district, developers will have access to a streamlined process for transit-oriented projects that meet the requirements of the district, rather than having to obtain a zoning variance.

For more information on a TOD overlay district:

City of Palo Alto Municipal Code Chapter 18.66 Pedestrian and Transit Oriented Development Combining District (PTOD)

City of San Mateo Municipal Code Chapter 27.90: TOD District - Transit Oriented Development

Promote Shared Parking Program

Shared parking is an effective strategy for utilizing land and parking supply efficiently, especially in downtown and mixed-use areas, where there is a higher demand for parking. When individual property owners are required to supply parking for their own exclusive use, this can lead to an oversupply of spaces in a downtown area or commercial district where people make linked trips to multiple destinations. Shared parking is a tool through which adjacent property owners share parking facilities and reduce the number of parking spaces that each would provide on their own individual properties.

*Shared Parking Second Edition*³⁹ provides methods for calculating parking demand for shared parking arrangements. Each land use has different parking accumulation patterns by time of day and month. For example, parking demand for an office reaches its maximum between 10 a.m. and 3 p.m. on weekdays, except for a slight decline during the lunch hour, and the demand is lower during the months of July, August and December. The parking demand for retail uses peaks between noon and 4 p.m., and the parking demand is the highest during the month of December. Other uses, such as residences, restaurants, and entertainment venues, will tend to have higher parking demand in the evenings. By locating uses adjacent to one another that have

³⁹ Smith, Mary S. Shared Parking Second Edition, Urban Land Institute, 2005.

complementary parking demands, a shared parking arrangement can be implemented that optimizes the parking supply used by the different uses.

There are three types of parking usage – 1) spaces used by employees and residents, which generally experience low turnover, and serve regular users who are familiar with the parking system; 2) spaces used by patrons and visitors, which generally experience higher turnover, and usually serve a mix of familiar and unfamiliar users; and 3) spaces reserved for use by individuals or particular user groups. While the third type is generally the most desirable, it is not an efficient use of parking supply because it severely restricts who can use it. Less stringent restrictions may be used to direct particular user groups to certain areas. In general, fewer restrictions are desirable; however, in some cases, residents or certain users may need or request reserved spaces. *Shared Parking Second Edition* provides three strategies:

- Some parking spaces may be reserved for exclusive use by individuals or a group of users during a particular time period.
- Some spaces may have a particular time limit
- Parking areas may be separated for short-term and long-term parking by pricing.

For more information on shared parking:

Smith, Mary S., Shared Parking Second Edition, Urban Land Institute, 2005.

Encourage Employers to Offer Parking Cash-Out for Employees

Some cities require employers to develop their own Transportation Demand Management (TDM) programs for the purposes of reducing parking demand and congestion. These programs may include carpooling, shuttle connections to nearby transit stations, or financial incentives for employees that discourage driving. A TDM program may include the option for employees to cash-out their parking spaces and receive the equivalent of the employer's cost to provide parking for him/her. Many large employers have a TDM program and a transportation coordinator, who can assist employees with finding alternative commuting transportation choices.

For more information on TDM:

Victoria Transportation Policy Institute, Online TDM Encyclopedia, Access online at http://www.vtpi.org/tdm/

EPA, Parking Cash Out: Implementing Commuter Benefits as One of the Nation's Best Work Places for Commuters, March 2005. Access Online at http://www.reconnectingamerica.org/public/download/bestpractice090

Create a Parking Assessment District

A parking assessment district is a useful strategy for pooling financial resources to operate and maintain parking facilities within a designated area. A parking assessment district is funded by

assessing fees from property owners in a specific geographic area known as a Special Assessment District. A special assessment may only be levied against parcels of real estate which have been identified as having received a direct and unique "benefit" from the public project, such as the construction of a transit station. The revenue from the assessments can then be used to construct and operate parking facilities, which will allow businesses to pool their resources rather than require each individual business to provide parking on site. This can help to promote infill and small parcel developments, for which providing on-site parking is not always physically or financially feasible. In addition, this will help redevelopment as land uses change and require higher parking demand than the previous uses.

For more information on parking assessment districts:

City of San Mateo Municipal Code Chapter 27.64.100, Online Access at http://www.ci.sanmateo.ca.us/dept/codes/ch27-64.html

Business, Transportation and Housing Agency and California Department of Transportation, *Statewide Transit Oriented Development Study – Factors for Success in California: Challenges and Opportunities*, Prepared by Parsons Brinkerhoff, February 2002.

Parking Management Short-term Actions

Short-term strategies focus on data collection and setting up a framework for managing parking within a district or station area. In addition, staff resources must be identified in order to create a mechanism for enforcements and implementation.

The first step in the short-term is to designate city staff who will be responsible for parking management. Then, staff can conduct an inventory of on-street and off-street parking spaces and periodically collect occupancy data during the weekday and weekend peak periods. This data will be used to inform and formulate parking management policies, such as setting appropriate parking rates and restrictions, and perhaps designating parking benefit districts. A mechanism will be needed for implementing short-term actions to set appropriate parking restrictions and to create parking facility design guidelines. Table 8-2 summarizes suggested parking policy adjustments based on the type of parking and level of parking occupancy.

Type of Parking	Parking occupancy level	Recommended Adjustments
Metered Spaces	Occupancy above 85%	Raise parking rates
	Low occupancy	Lower parking rates
Free parking spaces	Occupancy above 85%	Consider installing meters or
		start a parking benefit district if
		this is in a residential area
	Low occupancy	Remain as free parking
Parking benefit district	Occupancy above 85%	No nonresident permit issued
	Low occupancy	Issue nonresident permit for fair
		market price

Table 8-2: Summary of Parking Policy Adjustments

Mechanisms for parking enforcement and policy implementation are equally important as creating parking management policies and programs. Cities will need to coordinate with their Police departments to ensure there is an appropriate level of parking enforcement to make the policies effective.

Parking Management Long-term Actions

Long-term actions focus on creating a legal and financial framework for parking requirements. These include creating a TOD overlay district, parking assessment district, shared-parking program, and/or TDM programs, depending on the community's needs and objectives. Long-term strategies for a parking management program would need to be to integrate the program into any land use and redevelopment planning efforts to ensure that they are coordinated and helping to achieve common goals for balancing transportation access and encouraging transit-oriented development.

8.3 Improving and Encouraging Bicycle Access

Parking management strategies and policies can improve the pedestrian environment and encourage bicycle and transit use in denser, urban areas by leveling the playing field between automobiles and alternative modes. In more suburban environments where street configurations and existing development are not conducive to walking, improving bicycle access is one solution to improving circulation and access to transit without increasing automobile traffic or parking. While this may not be a strategy that directly results in the implementation of TOD, it attempts to better link transit and adjacent uses, or link different activity centers, where the existing built environment caters more to the automobile.

8.3.1 Bicycle Access Recommendations

Educate the Public and Coordinate Pro-Bicycle Efforts

Many people are discouraged from bicycling because they do not feel it is safe to bike on the local streets, they are not familiar with how the rules of the road apply to bicycles, they do not know of safe bicycle routes to their destinations, or they do not have a safe place to lock their bicycles at their destinations. Education and coordination amongst residents, employers, businesses, and local bicycle groups can help to answer questions and broaden awareness. Differentiating between perceived dangers of bicycling and actual lack of safe bicycle routes is an important distinction that can aid in addressing the real issue. If indeed there are few safe bicycle routes for people to use, these gaps should be identified in a Bicycle Master Plan. Subsequent public outreach and education about such a plan would help to broaden awareness about the location of bicycle facilities that are preferred routes for bicyclists.

For more information on bicycle facility design:

Peninsula Bicycle and Pedestrian Coalition, Access Online at: http://www.pbpc.svbcbikes.org/

Bike Month, Access Online at: http://www.bikeleague.org/programs/bikemonth/

Improve Signage and Wayfinding

Signage, street markings, and lane striping help to broaden awareness of the local bicycle network and improve the visibility of bicycle facilities amongst bicyclists and motorists, which will in turn, improve safety.

For more information on bicycle facility signs:
Manual of Traffic Signs – Signs for Bicycle Facilities, Access On-line at: http://www.trafficsign.us/bikesign.html
City of Santa Monica Real-time public parking availability, Online Access at: http://parkingspacenow.smgoy.net/

Build Facilities, Reconfigure Infrastructure and Address Traffic Signals

These are more capital-intensive improvements, such as adding parking, building new bicycle facilities, re-striping or reconfiguring streets to incorporate bicycle lanes, constructing off-street bicycle paths, or installing loop detectors at intersections to actuate a green signal for bicycles. A few transit stations within the BART and Caltrain systems with high bicycle access mode shares have secure bicycle parking in the station that is staffed during business hours to reduce the chance of bicycle thefts. Multiple agencies and organizations have developed design guidelines for bicycle facilities, including American Association of State Highway and Transportation Officials (AASHTO) and Caltrans.

For more information on bicycle facility design:

American Association of State Highway and Transportation Officials (AASHTO), AASHTO Guide for the Development of Bicycle Facilities. AASHTO, 1991.

Caltrans, *Bikeway Planning and Design, California DOT Highway Design Manual Fourth Edition*, (online pdf, go to chapter 1000). California Department of Transportation, 1990.

Information on bike stations at transit stations in the Bay Area, Access Online at: http://www.bikestation.org

Establish a Bicycle –Sharing Program

Another approach to increasing bicycle use that has gained popularity in Europe is the concept of bicycle-sharing. Similar to the car-sharing organizations that have flourished in the Bay Area in recent years, bicycle-sharing programs allow people to rent a bicycle for a nominal fee for a short period of time. The bicycles are stationed in multiple locations around the city, and people can check-out a bicycle from one station and return it to another near their destination. The outdoor advertising firm, J.C. Decaux operates such a bicycle-sharing program called Cyclocity in cities such as Lyon, Brussels, Vienna, and Paris (starting July 2007). In this model, the private firm

covers the capital and operating costs of providing and maintaining the bicycles and the stations in exchange for control over advertising space. The city receives 100 percent of the revenues from the bicycle rentals and also collects an annual fee from the advertising company. While this may be more practical in larger cities where there are hundreds or thousands of bicycle stations where people can retrieve or return the bicycles, it is a concept that could be considered at a smaller scale by any city that wishes to encourage bicycling and provide an alternative to motorized transportation.

For more information on bicycle sharing program:

J.C. Decaux bike-sharing program: Cyclocity, Access Online at http://www.jcdecaux.co.uk/development/cycles/

Washington Post article, "Paris Embraces Plan to Become City of Bikes", Access Online at http://www.washingtonpost.com/wp-dyn/content/article/2007/03/23/AR2007032301753.html

8.3.2 Bicycle Access Short-term Actions

Short-term actions to improve and encourage bicycle circulation focus on increased levels of coordination, safety and public awareness.

- Prepare a bicycle plan that identifies gaps in and prioritizes the implementation of the bicycle network.
- Seek funding opportunities for implementing bicycle improvements.
- Increase bicycle parking locations in downtown and at other activity centers, by placing racks in convenient and visible locations.
- Improve signage and pavement markings to broaden awareness of designated bicycle routes, and improve the visibility and safety of bicyclists, especially at identified blind curves.
- Install loop detectors for bicycles at key signalized intersections to facilitate bicycle movements. This will also improve safety because bicyclists will not have to run red lights when they are at intersections where there are no cars to actuate the traffic signal.
- Promote coordination for Bike-to-Work Day (every year in May) and other events amongst local businesses, employers, and bicycle groups.
- Investigate bicycle-sharing programs, as seen in Europe.

8.3.3 Bicycle Access Long-term Actions

Long-term actions focus on improving bicycle facilities and access:

- Fill gaps in the bicycle network identified in the bicycle plan, by constructing key bicycle facilities. In South San Francisco, the Railroad Avenue bike path is an important link that would drastically improve bicycle connections between South San Francisco residential areas and Oyster Point businesses.
- Construct a pedestrian/bicycle underpass at the future relocated South San Francisco Caltrain station. Assuming that the Caltrain station will be relocated just south of its current location, an underpass will greatly improve pedestrian and bicycle access to/from and through the station, providing another potential link between the commercial district

and residential areas in South San Francisco and the Oyster Point businesses. Design of this facility will need to maximize visibility and light to minimize potential safety issues that are common to underpasses.

• Set-up a bicycle-sharing program, using the Cyclocity or other similar model. While this program would be of a much smaller scale than the programs in larger European cities, even an informal bicycle-sharing program, if well thought out, could encourage bicycle usage for short trips around the city.

8.4 Public Outreach Strategies

The following are several short and long-term public outreach strategies recommended by the project team, to the City of Belmont to assist with the advancement of its Economic Development Strategy process. These strategies could also be adopted by other cities that are looking to educate stakeholders about TOD, redevelopment, and any community planning efforts they may be undertaking.

8.4.1 Public Outreach Tools

Because of the visual nature of planning, it is important to create user-friendly and interactive tools to communicate changes to existing land use and physical implications related to development scenarios to the public. The following interactive planning and communication tools could be used to communicate planning and TOD elements in a community engagement process:

Planning Process Communications Tool Kit

Features an interactive presentation and facilitation tool which can collect input about local community planning, interactively prioritize content/implementation strategies, summarize stakeholder discussion content, and create on-site (real time) reports from input provided by meeting participants. This dynamic planning communication tool enhances the public participation process for all stakeholders.

GIS Technology and 3D Visualization—GIS technology and 3D Visualization are extremely useful in detailing land use development elements, illustrating maps, modeling physical and topographic information, and creating 3D animation for presentations. Both technologies can enhance and bring to life visual representations to show realistic planning features and assist with decision-making exercises at venues such as community workshops and other public stakeholder forums.

Dynamic Public Involvement Websites and Survey Pages

Web delivery of public surveys is a powerful tool that can solicit great dialogue and gather detailed data surrounding land use and planning efforts. Because of the interactive nature of the web, various forms of informative data such as maps, statistics and GIS/3D visual scenarios, can be made available to a wide audience and open the public participation forum up in a unique and educational way.

8.4.2 Public Outreach Short-Term Actions

The City of Belmont has indicated a desire to coordinate its General Plan update concurrently with the preparation of the Request for Proposals (RFP) targeting owner participants and developers. Therefore, it is crucial for the City to get consensus on its economic development targeted site strategy (from all stakeholders), in order to "facilitate developer negotiations and project implementation." Timing for the implementation of community outreach should occur as the RFP is being formulated and General Plan development is initiated.

The project team recommends that the City of Belmont implement a proactive and inclusive public outreach/education campaign to explain the nuances of the proposed Economic Development Enhancement – Target Site Strategy Plan. The approach could be a series of community planning study sessions explaining the land use and development scenarios of the five target sites, examining financial/revenue projections, an assessment of parcel feasibility for development, review proposed parking management strategies, and visit community specific concerns surrounding planning/development.

An example program could include a planning workshop that would be conducted over the course of two days. The first session would be a "virtual" field visit open to participating stakeholders (see list below) to assess similar relevant project examples of urban design and architecture in the Bay Area (focusing on mixed use districts on the Peninsula and in the East Bay). This "virtual" field visit would use a presentation to capture the visual/land use elements of the specific targeted development sites, data and financial information generated from the initial field visits conducted with the City Council Subcommittee on Economic Development (a special subcommittee formed to assess the City's economic development process) in April 2006. The "virtual" field trip would allow community stakeholders an opportunity to assess the following criteria for proposed sites:

- Parcel feasibility for development
- Financial viability for proposed sites
- Forecasted preliminary fiscal benefits from development of proposed sites (revenue generation)

The second session would be a working session where information from the field visit would be evaluated using the Planning Process Communications Tool Kit. Combining field visit information with interactive support tools such as the GIS based site simulations, along with pertinent financial projections for proposed sites, GIS based site simulations, and include a discussion about trade-offs and choices associated with each site. This will provide an opportunity for participants to be part of the decision making process while it is still in the planning phase.

Stakeholders would include, but not be limited to the following:

- Property Owners
- Developers
- Home Owners

- Residents
- Business Owners and Employees
- Community Based Organizations
- Belmont Chamber
- General Plan Steering Committee
- City and Arts Commission
- Belmont Planning Commission
- Notre Dame de Namur University
- Belmont Finance Commission

This process of early public involvement could positively set the stage for an ongoing community planning process—one that can help identify concerns, assist with issue resolution, open/and continue a public dialogue, and heighten public awareness and understanding about planning and TOD efforts.

8.4.3 Public Outreach Long Term Actions

Previously noted anecdotal comments shared by planning/redevelopment staff members and developers have underscored the need to educate and involve community members and other key stakeholders about the significance and complexities of the planning process in order to ensure understanding, and create an environment of support for planning initiatives.

The project team recommends a long-term outreach strategy of conducting a comprehensive "Community Development 101" workshop that would be a one-day crash course for citizens and other interested stakeholder groups. This would be the beginning of the public participation and education process in Belmont, or other cities that are looking to manage future growth and development in a form that is denser and more compact than to what people are accustomed. Undertaking this targeted outreach would help the City better identify issues associated with planning, correct misinformation, pinpoint new stakeholders that need to be brought into the process, and establish a baseline about current public knowledge related to planning. At the end of the workshop participants will leave with a planning "tool kit", so that they can share what they have learned with other stakeholder networks in the community.

This "Community Development 101" workshop could become a regular bi-annual or annual check in between the City and stakeholders, and assist in advancing current and future planning efforts. However, ultimately, one of the most important benefits of the type of public involvement approach will be that it can help to establish a more realistic and meaningful outreach mechanism between the community and the City going forward.

Stakeholders would include, but not be limited to, the same group listed under short-term actions.

- Reconnecting America (Trends for Transit Oriented Development), Access Online at: http://www.reconnectingamerica.org/index.htm
- International City/County Management Association (ICMA), Access Online at: http://icma.org/main/topic.asp?tpid=8&hsid=10
- International City/County Management Association (ICMA), Access Online at: http://www.smartgrowth.org

America Speaks (Organization that develops innovative deliberative tools that work for both citizens and decision makers): http://www.americaspeaks.org

National Association for Community Mediation offers constructive processes for resolving differences and conflicts between individuals, groups, and organizations, Access Online at: http://www.nafcm.org

The Congress for the New Urbanism (CNU), Access Online at:: http://www.cnu.org

8.5 Short-term and Long-term Actions

The following table summarizes the recommended policy directions and short-term and longterm actions depending on the different challenges to implementing or promoting TOD. The challenges presented are categorized by promoting small parcel development, promoting land assembly, balancing parking supply and demand, improving station access, and maintaining communications with stakeholders.

San Mateo County TOD Opportunity Study Final Report

Table 8-3: Short-Term and Long-Term Actions

Challenges to Small Parcel Development	General Policy Directions	Short Term Implementation Strategies	Long Term Implementation Strategies
Parking is difficult to accommodate on small parcels, and this often limits the potential intensities of new development	Reduce residential parking minimums per parcel	Allow an in-lieu fee for developers of small parcels near transit	Reduce parking ratios based on local research on what is achievable in communities with similar transit amenities and demographic characteristics Consider shared parking strategies
	Eliminate on-site retail parking in downtown districts	Allow an in-lieu fee for developers of small parcels near transit	Incorporate a public parking facility in the City's capital improvement program, and define a local district funding source such as in-lieu fees, parking meter fees, or assessment district
Height, density, open space, setback and other zoning regulations may make intensive small parcel development physically infeasible.	Review and modify zoning code	Compare local zoning regulations with "infill-friendly" examples (refer to Table 8-1)	Modify zoning code to be infill-friendly, or implement form-based code
Navigating the public hearing and permitting process is time consuming, and not cost effective given the small profit margin on small parcel development	Establish detailed regulating policies that incorporate the community's vision, reducing the time needed for public hearings	Educate residents about benefits of more intensive development near transit stations through community events; provide examples of well designed density	Implement or update specific plans in transit areas Implement precise plans in transit areas
Small parcel developers are often local entrepreneurs who take more risks, and are often not as well capitalized as typical developers	Identify local people who are likley to develop small parcels and provide supporting services	Identify key business owners, real estate brokers, or residents who are likely to invest in small parcel development Hold focus groups or interviews to understand their needs and concerns	Conduct a detailed station area market analysis that considers factors such as competitive market niches, lease and sales prices for a variety of uses

Source: Strategic Economics, 2007.

San Mateo County TOD Opportunity Study Final Report

Table 8-3: Short-Term and Long-Term Actions (Continued)

Challenges to Land Assembly	General Policy Directions	Short Term Implementation Strategies	Long Term Implementation Strategies
Parcel assembly is difficult to do in the private market	Use public funds to acquire contiguous parcels for private development	Study possible use of eminent domain or alternatives of such use Identify key properties on which development could catalyze new investment near transit	Assemble parcels using local funds, and resell to developers
Eminent domain may not be supported by the local community	Consider alternative ways of assisting private developers with parcel assembly	Offer low interest loans to developers to purchase land for assembly	Consider innovative techniques, such as "option in" strategy, that are being developed as eminent domain becomes infeasible in many localities
	Provide indirect assistance by acting as a clearinghouse for information on available parcels	Collect information about available parcels on an ongoing basis, and proactively approach developers with opportunities Create a database identifying possible opportunity sites for future reuse	Work with local real estate brokers to coordinate land deals Maintain ongoing information about available parcels, opportunity sites
Affordable housing is an important component of TOD, but inclusionary zoning is not always financially feasible on small parcels	Assemble affordable housing finance packages to subsidize mixed-income development near transit	Direct local affordable housing resources, such as Community Development Block Grant* and Redevelopment housing set-asides, towards transit zones Educate local residents on benefits of mixed-income housing near transit	Provide ongoing evaluation of financial feasibility of inclusionary zoning policies Incorporate transit-specific affordable housing plans in the long range planning process
There are limited public financial resources to support infill development	Tap into new statewide financial resources	Understand and follow policy developments for Propositions 1C and 84 Track other county, regional and statewide funding sources	Apply for grants to support above implementation strategies Prioritize spending based on local community goals for transit areas Evaluate the potential to pursue value capture strategies such as assessment districts, Mello Roos, to support transit district plans

3 2 rote: The Community Development block stant program, auministered by U.S. Department of Frougning and Strong Development, provides annual grams on a rounnal value of the contract of the cont principally for low- and moderate-income persons. Source: Strategic Economics, 2007

OD Opportunity Study	
San Mateo Coun	Final Report

Table 8-3: Short-Term and Long-Term Actions (Continued)

Challenges to Balancing Parking Supply and Demand	General Policy Directions	Short Term Implementation Strategies	Long Term Implementation Strategies
Overabundance of parking spaces take up large areas, which could be better utilized if redeveloped	Establish a parking management program	Conduct a parking occupancy survey during weekday and weekend peak periods.	Work with employers and offer cash-out to employees in lieu of providing employee parking as part of TDM
S hortage of parking space s results in spillover into adjacent residential areas	Establish a parking management program	Conduct a parking occupancy survey during weekday and weekend peak periods	Develop a shared parking program
		Encourage high turnover for high demand on-street parking spaces through time limit or meters	Lreate a parking assessment district
		Establish a parking benefit district	
Challenges to Improving Access in Suburban Environments	General Policy Directions	Short Term Implementation Strategies	Long Term Implementation Strategies
The existing roadway network is auto oriented, and is perceived unattractive and	Creates a bicycle plan that outlines the need for supporting facilities, wayfinding,	Prepare a bicycle plan	Fill gaps in the bicycle letwork identified in Bicycle Master Plan
unsafe for bicycling	coordination, and infrastucture/signal improvments	Install loop detecors for bicycles at key signalized intersections	Provide sharing options
		Increase bicycle parking locations in station areas/commercial districts	
		Increase signage and pavement marking	
		Promote bike-to-work day coordination amongst local businesses, employers, and bicycle groups	
Existing physical environment suffers from auto-oriented parking facility design and lack of coordinated site design, is not pedestrian	Create a pedestrian friendly environment through high quality urban design and landscaping	Create design guidelines for parking facilities to provide landscaping and other design features that complement the pedestrian environment and minimize the number of	Implement the design guidelines to new developments Identify a way to retrofit downtown and central
11 I I I I I I I I I I I I I I I I I I			commercia aisuicts to comoin whith the aeisgi guideline.
Challenges to Maintaining Communications with Stakeholders	General Policy Directions	Short Term Implementation Strategies	Long Term Implementation Strategies
There is no regular public outreach program where City staff communicates	Implement ongoing community planning process with a continuous public dialogue	Conduct a series of workshops and presentations with stakeholders	Educate stakeholders and continue their involvement in the planning process
pialititig citotis with iocal starcholders.		Create and maintain a list of stakeholders	
Source: HNTB, 2007			

8.6 Implications for TOD in San Mateo County

Small-scale infill development will continue to play a role in advancing TOD in San Mateo County, and therefore, local and regional planning agencies will need to actively engage stakeholders on a regular basis, set-up the right incentives, and streamline the process for implementing TOD. Many cities have prepared plans and made zoning changes to lay the foundation for TOD, but there are still multiple obstacles that need to be overcome for these plans to become reality.

The recommendations outlined in this chapter focus primarily on the actions local governments can take to help promote and implement small-scale infill development in their communities. In San Mateo County, where many communities grew up around train stations, there is a mix of pedestrianoriented neighborhoods well-suited for TOD as well as some auto-oriented environments that do not lend themselves to transit use at all. San Mateo County will have to continue to work within the communities to quell fears and apprehension about density, even at a small-scale, and capitalize on the fact that it has access to two major rail transit systems. This is true for any community that aims to maximize its existing transportation resources, while also trying to reduce congestion and find accessible land for future housing and jobs.

At a regional and statewide level, it is also important to understand and address the challenges that are particular to densifying development in existing urbanized areas. Tools that could help local communities include a regional database of infill projects that would help stakeholders visualize small-scale development. Annual progress reports that use maps to convey density could be used to compare 'where we are today' and 'where we want to be' in 20 years so that we have a tool to gauge whether we are on track to meet our goals, or whether more needs to be done to advance TOD. These tools along with financial resources would go a long way to promote TOD.