



Economics Research Associates

Project Report

**Compass Blueprint Market Feasibility Analysis
in the South Bay**

Prepared for

South Bay Cities Council of Governments

Submitted by

Economics Research Associates

July 2008

ERA Project No. 17504

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Every reasonable effort has been made to ensure that the data contained in this report are accurate as of the date of this study; however, factors exist that are outside the control of Economics Research Associates and that may affect the estimates and/or projections noted herein. This study is based on estimates, assumptions and other information developed by Economics Research Associates from its independent research effort, general knowledge of the industry, and information provided by and consultations with the client and the client's representatives. No responsibility is assumed for inaccuracies in reporting by the client, the client's agent and representatives, or any other data source used in preparing or presenting this study.

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I. Executive Summary

Introduction

As the Compass Blueprint Strategy formulated by Southern California Association of Governments (SCAG) to ensure sustained high quality of life in Southern California moves into its implementation stage, the organization is working with all sub-regional entities to prepare a series of demonstration projects which can effectively illustrate realistic models of development within its overall strategic framework. The Compass Blueprint Strategy identifies that modest change in just two percent of the land area in Southern California can be leveraged to produce significant positive results in terms of efficient mobility, improved air quality, enhanced livability, and sustained prosperity in the region. SCAG has identified areas across the region where some of these changes can be accommodated. The key element of the strategy is to encourage the creation of dense, walkable centers where residents can live, work, and shop.

Over the past three years the South Bay Cities Council of Governments (SBCCOG) has been conducting research into the transportation performance of its existing urban form, especially typical suburban corridors and compact mixed-use centers consistent with the Compass Blueprint. The research has revealed that auto dependence in the study areas is high and people will continue to be auto users – especially in the context of the corridors. The research also revealed that residential density has to be supplemented by a diverse mix of functionality accommodating jobs and services in order to achieve desired transportation performance levels.

ERA is charged with continuing this research by focusing on the specific economic issues that could affect transportation performance and that surround the potential feasibility of future development strategies. In this report, ERA examined the base economic conditions of four study areas (two centers: Riviera Village and Downtown Torrance and two corridors: Artesia Boulevard and Hawthorne Boulevard). These study areas were selected from the original eight by the SBCCOG on the basis of their good transportation performance (centers) or their typicality (corridors)

ERA's base analysis focuses on retail performance and market dynamics within each of the study areas in the context of available markets and potential retail support from within a walkable neighborhood. ERA also conducted a market overview to establish existing and future potential demand for development opportunities in the South Bay. Based on this analysis, ERA established a series of development alternatives to illustrate the financial feasibility of alternative single use, horizontal mixed use, and vertical mixed use development in the South Bay. Finally, ERA examined the likely fiscal implications of the alternative development options based on contemporary budget circumstances of the cities of Hawthorne, Redondo Beach, and Torrance.

Study Area Overview

The Riviera Village study area is located in Redondo Beach, approximately a quarter mile from the Pacific Ocean. It is roughly a triangle-shaped area of 64 acres. Riviera Village is a retail and office location that serves a variety of shopping and service related needs. Most of the offerings cater to a wealthier demographic, as the shops tend to be more boutique vendors. Though there are some chain stores such as Trader Joes, La Salsa, and Coffee Bean, the vast majority of the vendors are specialty retail. Furthermore, the services offered are also targeted towards populations with high levels of discretionary income. The center encourages walking through its design with the central parking lot, pedestrian friendly cross walks, and low speed limits.

The Downtown Torrance study area is approximately 54 acres in size. In comparison to Riviera Village, Downtown Torrance is a slightly smaller and a less cohesive shopping destination. In the northeast corner, there is a cluster of retail, restaurants, and dental offices that create its own sub-center because of the landscaping and continuous building facades. The rest of the area is fairly condensed with some vacancies and open parking lots that disrupt the flow of the center and create breaks that separate each cluster of uses from the next. Like Riviera Village, Downtown Torrance has smaller block configurations off-set from the larger transportation grid network

The Artesia Boulevard Corridor, or Highway 91, is located in Redondo Beach to the northeast of Hermosa Beach, to the south of Lawndale, and to the west of Torrance. The corridor is a main thoroughfare, connecting I-405 and the Pacific Coast Highway 1, providing access to Hermosa Beach and greater Redondo Beach further south. The study area is approximately 1 mile in length, stretching from Inglewood Avenue on the east to Aviation Boulevard on the west. Although Artesia Boulevard is not as walking oriented as Riviera Village, the City of Redondo Beach has improved the pedestrian environment along the corridor with bulb outs, landscaping, and brick-like crosswalks. In comparison to Riviera Village, which is patronized by ‘comparison shoppers’ who go to multiple stores in the area, the retail offered on Artesia is more focused on ‘destination shoppers’ who drive in for one specific activity. Most of the food and beverage establishments are not restaurants but rather quick-stops for fast food types of meals with an automobile orientation. Another distinguishing characteristic is its location just west of the South Bay Galleria mall.

The Hawthorne Boulevard Corridor is located in southern Hawthorne just north of Lawndale. The corridor is about 1 mile to the east of I-405, and at the southern end of the corridor, just over 1 mile from I-405. Hawthorne Boulevard itself is a main thoroughfare (with three north bound and three south bound traffic lanes) that connects Rolling Hills Estates in the south to Inglewood in the north, passing through Torrance, Lawndale and Hawthorne. The corridor study area is about a one-mile stretch between El Segundo Boulevard to the north and Rosecrans Boulevard to the south. Similar to the Artesia Boulevard corridor, Hawthorne is not a walking retail center. Also, the Hawthorne Boulevard corridor is especially heavily service oriented, as almost 50

percent of its tenants are various types of services. The streetscape itself is limited and most of the buildings are older with many of them dating back to the 1950s and earlier. With the closure of Hawthorne Plaza to the north of the corridor, the City is currently focused on redevelopment efforts at that location and along the corridor in general. This is evidenced by new crosswalks and other infrastructure improvements. A unique feature to Hawthorne Boulevard is the central median (formerly streetcar right of way), which provides parking to retailers along the corridor.

Socioeconomic Conditions

In order to analyze the specific characteristics and performance levels of each study area, a one quarter mile inner core and a half mile outer ring study area were defined in each case. The basis of these geographies is that a half mile shed is considered the farthest feasible walking distance for various retail goods. The centers' center point and the corridors' approximate mid-point were used to create quarter and half mile areas of analysis. It should be noted that the corridors' quarter and half mile study area is a buffer around the one mile corridor. As a result, the shape and size of the area differs dramatically from the center study areas. ERA further examined specific "major/major" intersections to compare like-sized geographies for the centers and corridor study areas.

The majority of land in the study areas is dedicated to residential uses. Riviera Village, Artesia Corridor, and Hawthorne Corridor have between 74 and 71 percent of the land dedicated to residential land uses. Downtown Torrance, however, has a roughly proportional distribution of residential and non-residential land. This is primarily due to the large amounts of commercial and industrial land uses, as well as the Honda site that occupies approximately 100 acres of land. An examination of the inner study area provides a notably different allocation of residential versus non-residential land uses. In comparison to the Corridors, the Centers have significantly lower amounts of residential land within the inner study areas. Riviera Village and Torrance have 56 percent and 36 percent of land dedicated to residential uses, respectively. Artesia Corridor and Hawthorne Corridor, on the other hand, have 77 percent and 67 percent dedicated to residential uses, respectively.

When examining the number of households in each of the study areas, the household population was significantly less in the Centers than the Corridors due to the smaller land area. Yet, when examining like sized geographies at the major/major Corridor intersections the number of households was relatively constant among the study areas. Not including Downtown Torrance, each area analyzed had approximately 4,500 households. Downtown Torrance is estimated to have fewer than 2,400 households or just less than half of the other study areas' average due to its proximity to a number of large industrial areas. Homeownership rates among the study areas tended to be heavily renter occupied. This is different than the South Bay region as a whole where 50 percent of all housing units are owner occupied while 46 percent are renter occupied (with the remaining 4 percent vacant). There are significant disparities between the median household incomes in the study areas and the South Bay region. Household incomes were highest in Riviera Village (\$87,441) and the Artesia Boulevard

(\$83,627), both significantly above the median income level in the South Bay (\$61,908). Downtown Torrance (\$60,669) had median household income in line with the South Bay region, while Hawthorne Boulevard (\$44,680) income levels are significantly lower.

The two centers had the highest residential density among the study areas. Existing residential development within the half mile market surrounding Riviera Village and Downtown Torrance had a net density of approximately 20 units per residential acre. The Corridors' had differing levels of density with Artesia Boulevard having 15.3 housing units per acre and Hawthorne Boulevard having 18.1 housing units per acre. In order to put these densities in context, West Hollywood, the most densely populated area in Los Angeles County has a density of 41.5 units per acre. However, both Westwood and Hollywood, considered to be dense, have similar levels of density with 23.7 and 24.9 housing units per acre, respectively. In comparison to other cities within the South Bay, such as Torrance that has a net residential density of 10.7 units per acre, the study areas have urban densities close to being among the highest in the South Bay and in Los Angeles County.

Potential Household Demand for Retail Goods and Reported Retail Sales

One of the key tasks within the research was to determine if a dense, mixed use center based solely on the walkable market area is economically feasible. Using the existing household and employment base data within the half mile area, ERA estimated the potential level of retail spending within each of the inner study areas. In every case, the estimated potential spending level was lower than the actual retail sales. The existing level of sales exceeds demand in the study areas even if one were to assume a 100 percent capture rate of all retail spending from residents and employees within each study area. This illustrates that unless the amount of retail activity decreases or the level of density increases significantly it is impossible for any of the Center or Corridor study areas to be supported by the half mile market area.

ERA also estimated the share of retail sales within each study area that can be attributed to its walkable market shed. This analysis found that market support from the walkable (half mile) area represents between 13 and 14 percent for the centers and 25 to 39 percent for the corridors. Consequently, the centers are attracting a large portion of market support from outside the walkable market shed. The corridors, in contrast, have a larger number of households based on the designated half mile buffer around the one mile corridor. The required market support in these areas is also less due to the lower levels of reported retail sales (relative to the centers). The retailers located along the Corridors typically are also low performing in terms of sales.

The above findings are significant in that they have far reaching implications in formulating mixed use programs that are also efficient in terms of transportation performance. The notion of 'mixed use' with retail on the ground floor and residential above may not be a solution to transportation problems if not applied prudently.

This concept can be illustrated by examining the hypothetical development scenario presented in Figure ES 1 below. This scenario assumes that a one mile stretch of a corridor in the South Bay is entirely converted to a traditional mixed use development, with ground floor retail and two stories of residential units above. The total residential development capacity of the one mile corridor is estimated to be 916 units with a retail development capacity of over 570,000 square feet. Assuming a household size of 2.2 per dwelling unit and retail space demand of 30 square feet per capita¹, excluding automobile sales, the net new demand from the new residential units is approximately 60,500 square feet. However, this includes all types of household retail spending. Assuming that a third of the total demand is captured along the corridor, the total potential corridor retail demand from the new households is just over 18,000 square feet. In other words, if one were to convert a mile long stretch of a corridors into three storey mixed-use with residential above retail, the residential component will account for approximately 3 percent of the total demand required to support the new retail. The retailers in the corridor will have to rely on other sources of demand to support 97 percent of their sales.

Figure ES1
Illustrative Supportable Neighborhood Retail as a Share of New Development
2008

Corridor Length =	1.00 Mile	
=	5,280 Feet	(a)
Parcel Depth =	135 Feet	(b)
Developable Acreage =	((a)*(b)*2) - Rights of Way	
=	1,140,480 Sq. Ft. (Assuming 20% ROW)	
=	26.18 Acres	
Residential Development Capacity		
Assumed Residential Density =	35 DU/Acre ¹	
Total Dwelling Units =	916 Dus	
Retail Development Capacity		
Assuming Ground Level Retail @	0.50 FAR	
=	570,240 Sq. Ft.	
Retail Support from New DU's		
Household Size =	2.20 /DU	
Incremental Population =	2,016 Persons	
New Retail Demand @	30 Sq. Ft./Capita	
=	60,480 Sq. Ft.	
Potential Neighborhood Retail =	30%	
=	18,144 Sq. Ft.	
Supportable Neighborhood Retail as a Share of New Development =	3.2%	

¹The overall development yields an FAR of 1.5 or can be equated to a residential density of 52 DU/Acre assuming average unit size of 1,250 Sq. Ft.

Source: Economics Research Associates

¹ ERA estimate.

As big box stores continue to offer low prices and choice within a wide range of merchandise, the neighborhood store's ability to capture retail dollars has continued to diminish. Retail offerings of stand-alone neighborhood stores remain limited to eating and drinking, grocery/drugs (even these are consolidated), and some personal and business services. This thin pool of tenants further limits the market for retail in small footprint mixed use projects.

Future Retail Considerations

Although the scope of this project does not include estimating future transportation conditions, ERA conducted a qualitative evaluation of a number of hypothetical scenarios related to consumer mobility and retail behavior. ERA examined recent trends in retail development and explored how retailers may be forced to adapt their existing format as automobile mobility changes in the future. This issue is of significant importance because retail is a key trip generator and its current format depends on a high degree of consumer mobility. If mobility declines, adaptive changes in retail format will be required.

In comparison to the County, the South Bay has a significantly greater share of shopping centers in configurations over 100,000 square feet. In fact, the average size of shopping centers in the South Bay is approximately 330,000 square feet. This represents an average of 46,000 more square feet of retail per center over the countywide average. To some extent, the size of shopping centers in the South Bay is inflated due to the presence of the Del Almo Fashion Center and South Bay Galleria. However, recent retail developments such as Plaza El Segundo and the planned Carson Marketplace, which proposes the development of 1.2 million gross square feet of retail, demonstrate the continued emphasis on delivering large scale retail formats to the sub-region.

Traditional market analysis suggests the required market shed needed to support a retail development in a configuration over 100,000 square feet, which is associated with Community Centers, Power Centers, Regional Mall, Lifestyle Centers, and Super Regional Malls, is typically 10 to 25 minutes driving time. However, the impact of factors such as street/parking congestion and high gas prices have not yet been incorporated into retail demand models.

ERA believes that two key transportation variables – travel time and trip cost – will change future consumer behavior and possibly redefine traditional retail markets. The length of time it takes to reach a destination has traditionally been a critical issue for consumers when choosing where to shop. Recently, the price of gas has begun to appear equally important. Key measures of traffic congestion in Los Angeles County have increased across the board since 1994 and have been accompanied by dramatic increases in the cost of transportation during the same time period. Perhaps as a result of this increasing friction of distance, the average estimated miles per household peaked in 2004 at 15,000 miles per year and then steadily declined in 2006 and 2007. This

might be foreshadowing an unexpected decline in the distance households are willing to travel due to increased mobility costs.

While it is too early to determine if the trend will continue, other indicators associated with retail consumption patterns point to a decline in trips associated with retail purchases. Based on published research, the number of retail trips made per household per month has declined steadily since 2001. Neighborhood serving retail, which could be located within a walkable distance of households, attracts a large percent of all trips (number) but generates a low percent of total spending (dollars). Current consumer behavior favors going to big box retailers to purchase a wide range of goods including groceries and other everyday-items (usually at lower prices) meaning that this retail spending is supported by auto travel instead of by walking or an alternative mode of transportation. However, as noted, consumer preferences may change as mobility continues to become more expensive in the future.

Based on an ERA estimate, a 20 percent reduction in travel speed (assuming automobile travel) is equivalent to a 40 percent reduction in market size. Such decreases in access (whether due to congestion or other factors) will have a profound influence on retail developments that require large market sheds. Similarly, increased gas prices will alter retail consumption significantly, with the potential to especially impact the South Bay and other areas in the region where there is a large concentration of retail configurations over 100,000 square feet.

Based on the above observations one hypothetical future retail scenario would be that in order for retailers to perform at current levels, they will have to penetrate a higher share of their primary markets. This scenario, however, may impact the big box stores significantly as their market areas are very large, and they may not be sustained even if they succeed in penetrating a higher share of a smaller market. This could lead to a fundamental shift in the way most retailers are monopolizing the market right now, and if realized, may result in the birth of a number of new retail formats that are smaller in size but with a much wider offering of merchandise.

Development Programs

The question is, given existing land values and market conditions, what type of developments would be financially feasible in the South Bay, irrespective of zoning and mobility constraints? Nine hypothetical models of various urban development forms were formulated for feasibility testing based on existing and projected market demand. Some of the development programs proposed would likely be in line with the Compass Blueprint Strategy, such as these involving mixed residential and retail and others represent typical retail developments that would occur in current market conditions. Although each model has been designated as associated with a specific node or corridor location, with adjustments to market inputs, most of the optional models could be tested at several of the study locations.

The basic characteristics of the nine alternatives are summarized in the following ES Figure 2. As shown, five of the alternatives include a significant residential element, five are mixed use developments, and four are single use. The pro forma assumptions assume some level of recovery in residential market conditions, and significant strengthening in attainable rents and demand for office space.

The criterion for evaluating feasibility of the alternative models is the internal rate of return (IRR). IRR is calculated including an assumed land cost reflecting current values. IRRs in the 10 to 12 percent range (after allowing for developer's profit) indicate feasibility for income properties, while condominium or other sales projects require over 12 percent. The IRRs calculated for the hypothetical South Bay developments range from 9.9 percent for a two-story retail project above podium parking to 18.8 percent for a hypothetical condominium development on a corridor (at a density of 40 units per acre).

These alternatives illustrate the relatively high profitability from residential development as opposed to office development or most forms of retail under current market conditions. In the example of one corridor residential development, an internal rate of return of 12.0 percent could be achieved with a land cost of \$140 per square foot. Alternative 4B is a variation of alternative 4A, substituting luxury condominiums for half the office space. This single change in land use increases the indicated IRR from 10.1 percent to 12.0 percent. The same increase in IRR could be achieved by decreasing the assumed cost of land by \$100 a square foot.

The continued shortage of housing supply in the Los Angeles basin has led to residential being the highest valued land use in almost any circumstance. Although the residential market is undergoing a major correction, which may result in further adjustments to residential land values, it still retains its substantial increment over most commercial uses. The fact that most of the South Bay is built out (at least under current densities) further adds to this appreciation of land value. As a result, asking land prices are higher than their allowable uses can support due to the expectation of converting the use to residential. Required on-site parking and building costs further add to retail being an undesirable use. Strategies to promote shared parking scenarios with a portion of the costs borne by the municipality may benefit some of the retail-oriented developments.

Issues to be considered in light of mixed use developments in the near term:

- Retailers' success will not be determined by the housing or employment within a mixed use development. As a result, retail needs to be justified by the existing market area with the new households and employees viewed as an additional source of incremental demand;
- Unlike malls and large shopping centers it is very difficult for a municipality to select and/or control the specific types of retailers for a development. Cities have, however, adopted creative ways of

controlling certain retail formats and mixes. Specific parking strategies and floorplate configurations might be a way to establish the desired mix of retail tenants in a new mixed use development; and

- The fiscal, transportation, and life style objectives of a city can be in conflict with the mix and scale of retail projects favored by developers.

Fiscal Implications of Development

As presented in Figure ES2, two of the nine alternatives return negative net fiscal impacts to the city. Alternative 1B, which is strictly a high density housing development, yielded a cost to the city. Similarly, Alternative 3 also yielded a negative impact to the City of analysis due to its heavy housing component. The largest fiscal benefit came under Scenario 6, a big-box retail development due to tax laws that increase the fiscal value of retail sales for municipalities. These findings are likely typical to other cities within the South Bay.

While the fiscal circumstances of each city influences the fiscal impact of the alternative development scenarios, several general conclusions can be drawn based on this fiscal impact analysis. First, in order for density to provide a positive fiscal impact for the cities analyzed, each project must contain high value housing. The high incomes required to purchase such housing are likely going to have more disposable income that will in turn provide fiscal benefit for the city via sales tax. Additionally, higher priced residential will have a higher associated property tax value which will increase the city's general fund. Second, the ability for cities to attract the new retail dollars from the new households is important. ERA assumes that 30 percent of all new household spending will occur within the city.

However, if the actual amount falls below 30%, the relative cost per new EDU will increase. On the other hand, if a city can increase the capture above 30 percent of new household retail spending, it will positively affect the fiscal impact of the development. Currently, there are large retail centers in neighboring South Bay cities that can be expected to attract a high percentage of the retail spending created by new housing developments in the cities analyzed. Finally, all scenarios assume five percent vacancy for retail uses. While this is an industry norm for retail development, it is important to carefully consider the retail portion of a mixed use project before development. As noted in the pro forma analysis of hypothetical scenarios, a developer can attain its required return through the residential component of the mixed use development alone. If the proposed retail is not properly developed, the retail may not reach full occupancy and fiscal benefit, in terms of sales tax, will be negatively affected.

Figure ES2
Summary Table for Development Alternatives
2008

	Alternative 1A Corridor Node : Horizontal and Vertical Mixed Use	Alternative 1B Corridor Node : Medium Density Residential Development	Alternative 2 Mid-Corridor Mixed Use Development	Alternative 3 Center : Mixed Use and Urban Live Work Units	Alternative 4A Center : High Density Vertical Mixed Use	Alternative 4B Center : High Density Vertical Mixed Use	Alternative 5 Stand Alone Mid-Box Retail with Surface Parking	Alternative 6 2-Storey Big Box, Additional Retail	Alternative 7 2-Storey Retail with Podium Parking
	<i>Replace existing low density retail use with: Townhouses/Condos (Subterranean Parking/Shared Parking); 4 Storey commercial mixed use with retail below and 3 stories of office above</i>	<i>Replace existing low density retail use with: Townhouses/Condos (Subterranean Parking)</i>	<i>Replace existing Auto related uses with: High Density residential and retail mixed use</i>	<i>Replace existing low density commercial and surface parking with: Live work spaces (residential above and work spaces below); Condos over retail; Town Houses</i>	<i>Develop existing Surface Parking With: Retail with Offices Above</i>	<i>Develop existing Surface Parking With: Retail with Offices and Luxury Condos Above</i>	<i>Corridor Development: Stand Alone Mid-Box Retail with Surface Parking</i>	<i>Corridor Development: 2-Storey Big Box, Additional Retail</i>	<i>Corridor Development: 2-Storey Development with Ground Floor Retail.</i>
Total Land Area									
Square Feet	261,360	261,360	43,500	100,500	73,600	73,600	48,000	250,000	30,000
Acres	6.00	6.00	1.00	2.31	1.69	1.69	1.10	5.74	0.69
Retail									
Square Feet	84,942	0	28,275	26,325	47,840	47,840	20,000	225,000	25,500
Rent (NNN/SF/Year)	\$37.20	\$0.00	\$30.00	\$36.00	\$45.00	\$45.00	\$27.00	\$34.65	\$28.80
Office									
Square Feet	241,758	0	0	0	136,160	68,080	0	0	0
Rent (Modified Gross/SF/Year)	\$36.00	\$0.00	\$0.00	\$0.00	\$42.00	\$42.00	\$0.00	\$0.00	\$0.00
Residential									
Dwelling Units (DU)	114	228	62	62	0	45	0	0	0
Sales Price/DU	\$690,000	\$675,000	\$406,250	\$525,000 - \$700,000	\$0	\$862,500	\$0	\$0	\$0
Total Parking	1,371	456	198	220	552	420	80	900	89
Internal Rate of Return	10.8%	18.8%	11.7%	15.0%	10.1%	12.0%	11.0%	10.6%	9.9%
Net Annual Impact to the General Fund	\$44,196	(\$2,017)	\$53,244	(\$16,068)	\$26,932	\$56,538	\$29,039	\$570,749	\$22,968

Source: Economics Research Associates

II. Introduction

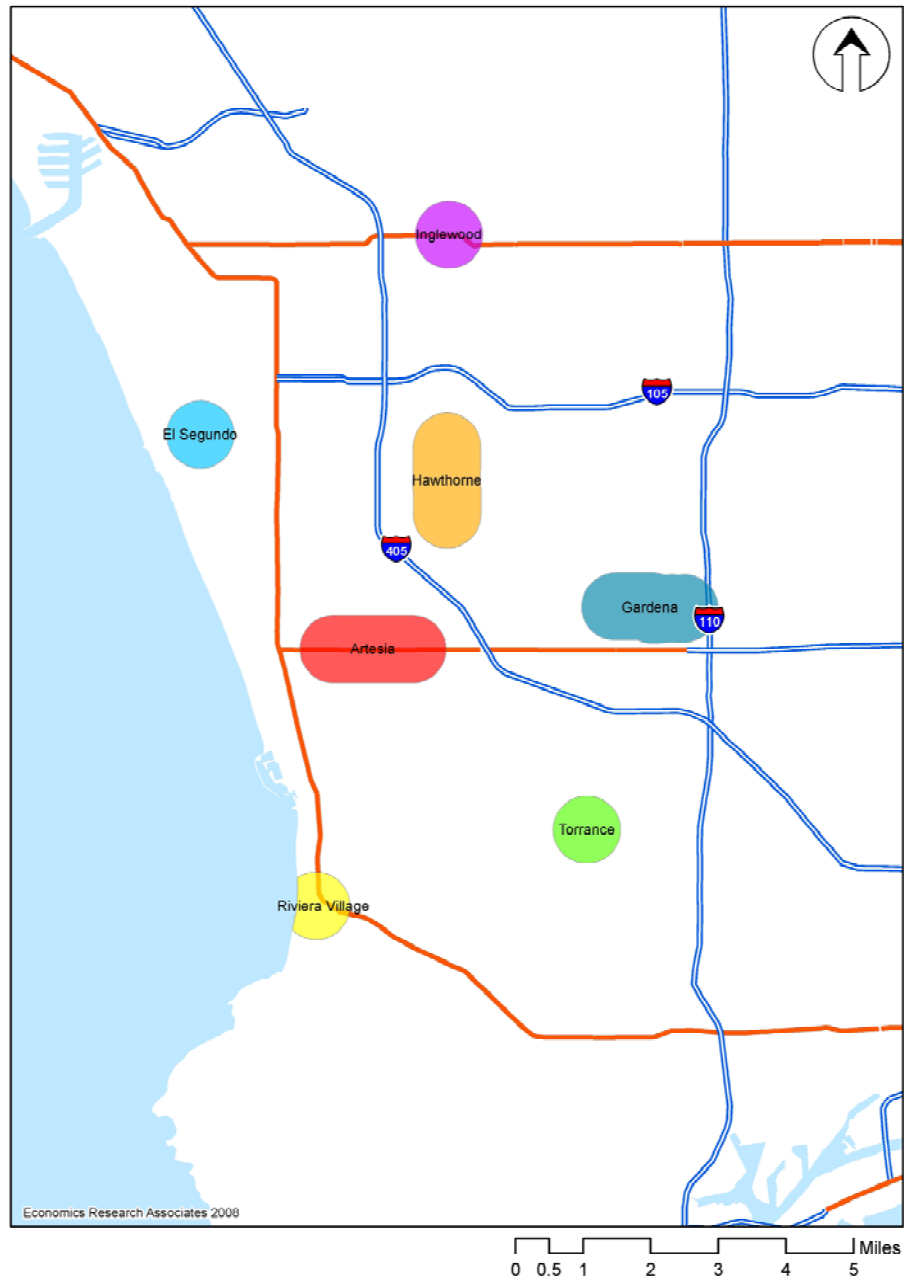
Economics Research Associates (ERA) was retained by the South Bay Cities Council of Governments (SBCCOG) with funding from the Southern California Association of Governments (SCAG) to continue previous research relating to how mixed-use districts in the South Bay function. The purpose of the previous work was to identify strategies for dealing with projected growth and density that is tailored to the SBCCOG's constituent cities, rather than simply adopting generic "smart growth" strategies. The critical question at the crux of the research was how to allow additional housing while minimizing the traffic impact in the region.

Solimar Research Group and Siembab Planning Associates examined eight different horizontally mixed use districts throughout the South Bay (Figure 1). Four districts were classified as "centers" and four were classified as "corridors." The centers analyzed by the research team are generally older downtowns with commercial and mixed use areas that stretch several blocks deep. In contrast, the corridors can generally be characterized as older strip commercial areas along arterial boulevards with the commercial properties located only on the arterial street frontage.

The four centers selected for their research were Riviera Village in Redondo Beach, Downtown Torrance, Downtown El Segundo, and Downtown Inglewood. The four corridors examined were Hawthorne Boulevard in Hawthorne, the area around Hawthorne Boulevard and the Pacific Coast Highway in Torrance, Artesia Boulevard in Redondo Beach, and Gardena Boulevard in Gardena. Based on a series of in-depth reports, many general conclusions were made. For the purposes of our research, several key conclusions are summarized below.

First, transportation performance is improved through a concentration of many activities, not just additional housing. Second, transportation performance is improved through a specific mix of retail businesses. Finally, centers and corridors are fundamentally different based on their physical form. These key findings established after three years of collecting qualitative research data as well as conducting and analyzing survey data.

Figure 1
South Bay Overview Map with Study Areas
All Study Areas



Source: Economics Research Associates

ERA's is charged with continuing this research by focusing on the specific economic issues that surround potential demand and feasibility for future development strategies. Based on discussions with SBCCOG, ERA will analyze the base economics of four of the previously analyzed study areas: Downtown Torrance, Riviera Village, Artesia Boulevard, and Hawthorne Boulevard. Departing slightly from the methodology used in the previous work, ERA created two additional study areas within each of the corridor study areas. This was done in an attempt to better understand the differences and similarities between the centers and the corridors using like sized geographies. As noted above, there are obvious differences in the centers and corridors physical form. However, if the ultimate goal is to convert specific areas along corridors to interact as centers, then an analysis is needed of comparable market areas within the base economic analysis.

In the Base Economic Analysis presented in Section III, ERA examines the contemporary conditions of the designated study areas focusing on areas geographical boundaries, regional context and current conditions, along with the City's regulatory environment, infrastructure, and fiscal circumstances. Furthermore, we review current land use, demographic, and business inputs to potential demand based on an examination of numerous factors along each of the designated study areas. Finally, we will conclude with a preliminary retail demand analysis for future land uses based on contemporary circumstances.

In Section IV, ERA estimates potential future demand for residential, retail, and office development within the study areas. The projected level of demand informs potential absorption of alternative development scenarios presented in Section V. In order to create development programs, ERA also conducted a capacity analysis of the four study areas to determine how much density (in terms of residential and commercial development) could be accommodated based on current zoning regulations. In this section we discuss potential issues with current retail formats as mobility becomes more constrained in the future. Finally, ERA presents the alternative development programs based on our market analysis and direction from SBCCOG to evaluate mixed-use projects that might be proposed in the South Bay.

Section V focuses on the financial feasibility of the proposed alternative development scenarios for the study areas. Although each model has been designated to a specific center or corridor location, with adjustments to market input assumptions, most of the optional models could be tested at several of the study area locations. Based on the feasibility testing, ERA also estimates the fiscal impact of the proposed development alternatives. Together, this research illustrates some key economic considerations when evaluating development options in the future.