GETTING THERE FROM HERE:
CHANGING LAND USE PATTERNS AND REDUCING EMISSIONS IN CALIFORNIA THROUGH QUALITY PROJECT DESIGN

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A Project

by

Rupinder Kaur Jawanda

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SB 375 aims to reduce greenhouse gas emissions through the integration of land use planning, transportation planning, and California's Regional Housing Needs Allocations or RHNA, and indirectly through a reduction in Vehicle Miles Traveled. The built environment, including land use patterns, will change in order to reach the ambitious goals set in the legislation. This project explores the most effective strategies to build higher-density and mixed-use developments.

This project uses information obtained through expert interviews from individuals with a role in influencing and working in land use planning and development. The opinions expressed by these individuals are important because of their experience and knowledge of land use and development in California.

The general consensus I found is that new developments that are comprehensive, and designed with quality features and aspects, will have the greatest impact in greenhouse gas emission reduction and reducing Vehicle Miles Traveled.

_____, Committee Chair
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Date

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Kirk Trost – General Counsel, Sacramento Area Council of Governments
Marty Tuttle – Deputy Director for Planning and Modal Programs, Caltrans & former Executive Director, SACOG; and
Carol Whiteside – Partner, California Strategies & Founder, Great Valley Center

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Chapter 1

INTRODUCTION

Purpose of the Study

Senate Bill 375 (SB 375) introduced by Senator Darrell Steinberg and enacted into law in 2008, proposes to reduce Greenhouse Gas (GHG) emissions from cars and light trucks through a new combination of regional transportation planning, compact and transit oriented land use, and California's Regional Housing Needs Allocation (RHNA). In combination with other California statues, namely Assembly Bill (AB) 32 and its related activities, SB 375 intends to reduce its GHG emissions to 1990 levels by the year 2020. Part of the legislation focuses on creating a Sustainable Communities Strategy (SCS) as part of the Regional Transportation Plan (RTP) prepared by the States Metropolitan Planning Organizations (MPOs). The SCS will be required to meet regional GHG reduction targets set by the California Air Resources Board (CARB), or the MPO must adopt an Alternative Planning Strategy (APS) if the GHG targets cannot be attained.

The new law encourages MPOs to plan for denser development and discouraged from greenfield development. Land use decisions remain local, with the ultimate densities and developments determined and approved by cities and counties. The legislation is largely incentive-based; cities and counties that align their land use decisions to conform to the regional SCS through more compact development and other strategies will receive priority funding for their transportation projects.

This study focuses on the broad factors that have helped, and will continue to help, implement the goals of the legislation in order to make the GHG emissions reductions from the RTP/SCS, while keeping in mind the economic and political realities that all stakeholders face. Specifically, overcoming the stigma associated with high-density and mixed-use development and building community support, considering the complex set of factors related to land use and development in California.

Problem

Because SB 375's ambitious goals will take years to fully implement, public officials and private developers must use a long-term approach to change land use patterns and the available housing types. Developing in a post-SB 375 regulatory environment requires an increased awareness of the economic, political, environmental, and social factors that has not been seen before.

Higher density and mixed-use developments will reduce VMT if implemented properly; however, these types of developments cannot be forced upon residents. A certain degree of understanding and desire is necessary for residents and local officials to accept, and eventually live in denser areas that provide more options. The importance of GHG emissions reduction through various strategies, and the implications of not making these decisions, is crucial to understanding the benefits and costs of shaping land use patterns.

Chapter 2

REVIEW OF RESEARCH

This study relies on expert opinions to form a basis to understanding how SB 375 will eventually change our built environment. The experts represent a broad group with different interests that will have to adapt to the changes outlined in SB 375. The group includes representation from the building community, planners, legal professionals, academics, policy influencers, a MPO, and the transportation sector.

I conducted expert interviews with individuals familiar, and even involved with crafting the legislation, and individuals who work with an organization that will directly impact future land uses, to help overcome the problem identified to understand the challenges and opportunities that face the successful outcome of SB 375.

I specifically asked individuals about overcoming public opposition to higher-density and mixed-use development, and the effective methods they felt will achieve this, considering the history of land use planning in California and SB 375, that aims to change this attitude. A summary of their responses appears in the Analysis of the Data section.

Publications referenced

The National Resources Defense Council's publication *Communities Tackle Global Warming: A Guide to California's SB 375* (2009) provides a comprehensive overview of the benefits and impacts stemming from SB 375, such as the changes to California's land use planning and regional transportation planning laws, the addition of

the SCS, changes to the Regional Housing Needs Allocation (RHNA), and the anticipated California Environmental Quality Act (CEQA) streamlining based upon the SCS. The publication discusses the importance of aligning certain planning tools and policies to reduce VMT and GHG emissions, in order to provide an incentivized path to tackle global warming.

The Public Policy Institute of California's report *Driving Change: Reducing Vehicle Miles Traveled in California* (2011) focuses on evaluating three strategies to help reduce emissions: higher-density development, investments in alternatives to solo driving, and pricing policies. The report emphasizes that "the integration of these three approaches is consistent with an emerging research consensus that policies integrating all three strategies have a much greater chance of reducing VMT than any one approach on its own" (p. 1). This multi-faceted approach is imperative to the understanding that there isn't one solution to the problem. The policymakers and decision makers need to work on finding the most effective solutions. According to the report, "policies that increase the cost of solo driving have the most immediate and highest potential to reduce VMT." This method is most effective in urban areas with larger volumes of traffic, and is not necessarily appropriate for the less urban metropolitan areas in California.

Jackson (1985) provides a review of the history of suburbanization of the United States and reveals the impact of public transit, public policy, and the automobile on the landscape of our nation. Trolleys, streetcars, and rail lines all provided access to commuters, and bridges and ferries provided unprecedented accessibility to the city and

job centers. Public policy led by government decisions defined the road as a public good, and mass transportation floundered because the streetcar was now a private investment, and the government removed subsidies for such programs. "As early as 1910, American urban transit, once the envy of the world, had been overtaken by Europe" (p. 168). Other parts of Europe focused on improvements to their transit systems and increased transit ridership compared to that of the United States.

The automobile cleared the way to live further from work due to the new unmatched accessibility of employment centers. Homebuyers did not have to confine their "choice of residence to one convenient to a bus or trolley line. The real significance of the motor vehicle lay in its ability to move laterally or perpendicular to the fixed tracks, and thus open up land for settlement previously regarded as too remote" (p. 181).

According to Lienerger (2009), "Throughout urban history transportation has driven development. The transportation system in which society chooses to invest its money, either direct government dollars or government-regulated private dollars, is the primary dictator of where and how we construct the built environment" (p. 32). The construction of interchanges, bridges, or any other structure or capacity enhancement indicates where growth is possible. The placement of transportation funding by decision makers has a direct link to land use in California.

Chapter 3

ANALYSIS OF THE DATA

Supported developments

Based upon the responses the types of developments inherently supported by SB 375 include intelligently placed infill that is supported by transit for Transit Oriented Developments (TODs) in urban areas. This type of development includes well-designed projects that truly provide an incentive for using transit because they are walkable and located within one-quarter to one-half mile of transit hubs. Ideally, these developments will be on an urban scale with services readily available and jobs located in the urban core. Additionally, the increase in density levels will allow for more diversity in the types of developments created such as the addition of urban parks, based upon the location of the project.

For suburban areas, the goal is to improve land use patterns and increase the opportunities to walk or bike for short trips and provide an alternative to driving, because these patterns take a long time to create and change. The focus is on strengthening economic development by providing mixed-uses and higher-densities that are appropriate for the area; and by placing residential units near amenities, thereby creating shorter vehicle trips. An increased focus on density along corridors by clustering commercial and mixed-uses at intersections, and pairing transit use at these locations, is more beneficial than adding density to single-family neighborhoods. Additionally, master-

planned subdivisions, if done right, can provide a mix of uses, and over time allow for a healthy mix of jobs and housing.

Changes in demographics and preference

Changes in the demographic make-up of Californians will lead to the shift in demand of higher-density housing in urban cores from older (baby boomer) and younger populations seeking an urban lifestyle with services located nearby. To increase the number of residents living in urban areas and to justify higher densities, people have to be attracted to the area, because a complex set of factors determines where people will live, including safety, amenities, and the quality of schools.

Overcoming opposition

Overcoming opposition to higher-density projects is a barrier that has to be broken through education. One evaluator discussed the importance of forming opinions beginning with children in our schools by incorporating environmentally conscious daily routines and habits, to do things more simply because we don't need to live so complicated.

Greater awareness is necessary of the link between land use patterns and the related vehicle emissions; some people still don't believe in climate change. There is the notion that self-interest motivates people more than any other incentive that can be offered such as tax credit or other monetary incentive for living in a more sustainable development. Factors such as the vibrancy of the area, quality inner-city schools, safety, and urban places are very desirable. Motivating people by self-interest with policies that

drive them to change the way they live will be more effective than forcing people to live where the local government thinks is appropriate. Examples of successful projects and policies will go further in increasing the awareness and positive reception of these projects, because these developments can convey the culture and experience of living in a TOD. 'Eyes on the street' is a common theme among successful developments, showing individuals that their neighbors and other members of the community are watching their surroundings and making it a safer place for everyone to live.

External forces

Land use and planning doesn't happen in a silo with SB 375, and the external forces helping and hindering the implementation of SB 375's goals are important to understand. Groups that litigate in an attempt to stop TODs, are not advancing the environmental goals outlined in SB 375. In fact, these groups could potentially pose a threat to an otherwise environmentally-conscious project. Considering the fact that many TODs provide housing choices for a mix of income ranges, including affordable housing; neighbors may object to such a project in their neighborhood.

The future availability of transit will be a key component to a successful transition to reduced driving. TODs need the support of reliable and frequent transit operations and investment to keep up to pace with growth and development. As a result, insufficient funding of transit operators could pose a threat if service becomes limited or nonexistent where a TOD is planned.

Local governments need to signal where they want development to occur so developers can bring projects forward that will likely be approved, reducing the guesswork, speeding up the development approval process, and reducing the costs associated with development. The CEQA streamlining provisions outlined in SB 375 provide relief for Transit Priority Projects (TPP) within one-quarter to one-half mile of a transit station.

Current issues

The interviewees are working on important projects in their current or former capacity that are aligned with the goals of SB 375. Some efforts are small in size, such as increasing the awareness of the green aspects of a development. Another example is a community-based project, the City of Citrus Height's Green Planning Academy, that teaches residents how to make a difference in their community through simple changes in their lifestyle to live greener. Through this education residents become better proponents of policy.

The California Building Industry Association (CBIA) works with its members to explain how new legislation affects their regions, and what to look for when engaging in Sustainable Communities Strategies (SCS) discussions. The CBIA also helps evaluate the regions for realistic housing and funding assumptions and ensure that members are participants in SCS and viable housing plans.

The California Department of Transportation (Caltrans) is working on the California Interregional Blueprint (CIB) through SB 391 (Liu, 2009) to create a multi-

modal plan for the state measurement of GHG emissions. The formation of the CIB requires land use considerations, making it a key piece of the land use and transportation discussion. Under SB 391, Caltrans must identify the statewide integrated multi-modal transportation system, prepare an Interim Report to the legislature by December 31, 2012, based on SB 375's SCS and APS, and develop the California Transportation Plan by December 31, 2015, that identifies the integrated multi-modal system necessary to achieve the maximum feasible GHG emission reductions.

The Sacramento Area Council of Governments (SACOG) is using a federal Department of Housing and Urban Development (HUD) grant to identify the barriers for implementing projects identified in a SCS and Environmental Impact Report (EIR). SACOG is attempting to develop a SCS and EIR that is truly tierable, through a set of standards that make it easier to clear environmental review for projects within the SCS. In addition, SACOG is using its federal grant to learn about natural resources, social equity, economic development, conservation, housing, public health and education, infrastructure planning, and revitalization. A Memorandum of Understanding for members of the Sacramento Regional Consortium includes agreed upon principles and the purpose to follow in order meet and discuss Regional Planning and Sustainable Development.

The City of Los Angeles is completing studies that will create TODs, future transit lines, specific plans, and focus on areas around existing transit lines for long-term

growth. The City plans to adopt over one dozen TOD type plans that will speed up the review process for developers.

The future of suburbs

Suburban development has changed forever because of several factors including: the real estate market bust, slow economic growth, existing supply, financing, and consumer and political realities. Depending on whom you ask, the future development of the commonly known suburbs is dead, or forced to evolve to meet consumer and market demands. Areas in California, such as the Central Valley consist of cities where the real estate market will take longer to rebound because of the higher than average rates of foreclosure and job losses. The existing housing supply will need to move prior to the construction of more mixed-use developments in these areas. Major issues include commuting, fluctuating gas/oil prices, and time spent in the car that could be spent elsewhere. The success of a market-driven real estate product is far likely to surpass what appears to be a government-imposed product, and higher-density must be truly market-driven to have a real impact on VMT.

Transportation funding

The glue that makes SB 375 possible is transportation funding. It's also considered the carrot that is providing local governments an incentive to rethink land use decisions, in order to align them with the goal to reduce VMT and GHG emissions.

Transportation funding is especially important for large projects where transportation linkage is essential to their success and functionality, such as a master-

planned development without current access from major roads and highways. Currently, it is too inconvenient to travel without a car to most locations, because the make-up of California consists of urban and rural areas with everything in between. Two evaluators gave an example of the European model of efficient transportation where residents do not need cars to travel long distances, because of the infrastructure and reliable transit services offered at affordable rates. These evaluators also mentioned the reality that money must be invested into creating reliable transportation, as it has been in other parts of the world, which are now better positioned to live in a post-oil world.

One evaluator noted, that in order to have a stable funding source, an increase in transportation funding is essential, with transit funding remaining a long-term focus, and roads a near-term focus. This strategy ties to the reality that funding allocations are made by elected officials, and if money isn't allocated to transit, then better service, and light rail cannot be justified either. If meaningful CEQA exemptions are not provided by California's Legislature, then TOD projects may not occur where they have the most potential benefit. The underlying premise is that more money will make a difference; however, a Regional Transportation Plan is a bottom-up process with cities and counties identifying projects for funding, and the California Transportation Commission (CTC) moves projects up and down. In addition, the CTC has a history of being heavily weighted towards funding roads and highways.

The competition for funding is increasing for local governments, and the MPOs can use funding to convince local governments to make different land use decisions

based on need. One evaluator noted the importance of educating the public on the level of subsidies for roadway improvement and construction, compared with the lower level of subsidies provided to transit infrastructure and operation.

Another evaluator pointed out that without transportation funding, particularly funding for transit, SB 375 will not work. There is a divestment of authority and a divestment of funding that comes with planning at the regional level, which hasn't been done before. Declining tax and revenues because of economic realities and negative views of "Big Government" are making funds harder to come by. The current leadership in the U.S. House of Representatives doesn't typically fund visionary projects such as the SACOG Blueprint to shift development; instead they fund typical highway projects. As one evaluator put it—transportation funding is very important; transit, and the capital cost of transit, cannot be met by the funding provided in the normal appropriation and budget process, a higher priority must be placed on transportation.

Chapter 4

FINDINGS AND INTREPRETATIONS

The most significant and cost effective reduction in GHG emissions and, by necessity, VMT will come from new construction and development patterns. The location and densities of new housing, offices, and retail combined with parking policies, transit choices and services and consumer demand will have a more profound effect on VMT than trying to "fix" older suburban developments. This concept does not imply that there is not room for improvement in suburban developments, instead there is potential, however the costs will likely exceed the benefits.

Designing a project where the surroundings are taken into consideration to improve accessibility and the connections to the existing area, is the universal consensus among the experts whom I interviewed. To the resident or consumer, density and mixed-use ratios aren't as important as the functionality of the development. The ability of residents to walk to work, school, shopping and other nearby activities, their accessibility to essential services, and being part of a community, are important for the developer and local officials to realize when proposing and approving projects. The coordination and communication among public and private entities and the community has to be present to develop quality projects that will accomplish many of the desired goals.

An important reminder from the evaluators is that the density must be appropriate for the area, and one size does not fit all. Proponents and opponents of TODs and other developments agree that the location and size of the development has to make sense.

Does this concept mean the end of greenfield development as we know it? It really depends on the market. Most of the experts interviewed expect a drastic change in development, where a different product and environment is sought. Consumers demand smarter living through a complete package, instead of isolated living and working areas. Builders will continue to respond with products that the market, their customer, demands.

The expertise and awareness of the long-term effects of land use patterns for policymakers has increased because of SB 375, this knowledge will allow for better and more informed decision-making. SB 375 is bringing organizations together to the same table to discuss the impacts and future of land use planning and transportation in California.

The discussion on transportation funding essentially boils down to creating a balanced and more appropriate transit and road funding solution, in order to build and maintain a viable system. Land use and transportation have to be part of the plan, the local officials have to take the vision and implement it.

SB 375 is a precedent setting in terms of land use planning and transportation funding, not only for California, but also for the nation. It has tuned in various interest-groups to see whether this will work, and what changes are attainable in the current economic and political environment.

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