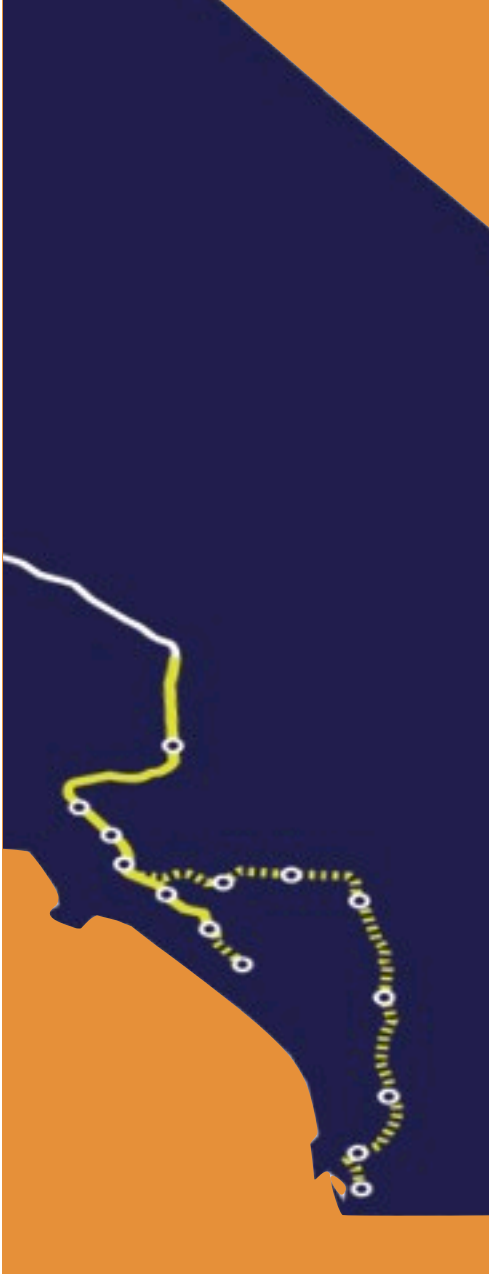


# THINKING AHEAD

## HIGH-SPEED RAIL IN SOUTHERN CALIFORNIA

### EXECUTIVE SUMMARY



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## EXECUTIVE SUMMARY



### **Prepared by Sarah L. Gatz and Adam Christian, Center for Urban Infrastructure**

In January 2010, President Obama announced the recipients of an unprecedented \$8 billion federal stimulus grant that will jumpstart high-speed rail service on thirteen corridors across the United States. California is to receive the largest share of any state, \$2.34 billion, with \$2.25 billion allocated to a dedicated high speed rail system (to be matched by state funds from Proposition 1A), and the remainder allocated toward regional transit projects. The likely scenario is that the majority of the funds arriving in California will be spent on construction in Southern California on a high-speed rail line from Los Angeles to Anaheim.

Excited by the potential of this investment for their constituents, many key political leaders are already touting the myriad benefits of a fast, convenient, and efficient intercity rail system, including lower carbon emissions, improved mobility, jobs and economic revitalization, and less dependence on foreign oil, which in turn will strengthen our national security.



This study analyzed some of the benefits likely to be reaped from high-speed rail, specifically in Orange County, and what strategies are needed to ensure that cities around the region can take advantage of the investment about to be made in California. It also examined high-speed rail's impact in relation to recent legislative initiatives that mandate a reduction in statewide greenhouse gas (GHG) emissions (AB 32), and the coordination of regional land use and transportation planning (SB 375) in support of those reduction targets.


**More specifically, the goals of this study were to:**

- Quantify some of the regional economic benefits likely to be captured by Southern California transit users and adjacent communities, such as reductions in GHG emissions, improved community health, HSR-induced employment growth, and the increased accessibility of affordable housing;
- Outline the principles of an effective intermodal strategy that would increase ridership on the future CAHSR system;
- Understand the role of high-speed rail in advancing compliance with SB 375's GHG emissions reduction targets;
- Assess the effectiveness and value of regulatory incentives provided under SB 375's Sustainable Communities Strategy for local governments and developers to build high density, mixed-use communities near transit corridors;
- Evaluate the scale of regional opportunities for transit-oriented development around HSR stations in Southern California, based on current zoning and the availability of land suitable for intensified development;
- Identify strategic land use/planning concepts conducive to future CAHSR ridership and station area (re)development;
- Recommend policies that cities and public agencies can undertake to maximize the benefits of high-speed rail at the local and regional level.

# SUMMARY OF FINDINGS



- During its construction phase (2012-2020), the CAHSR project will contribute a regional income benefit of \$701m (NPV @ 4%) to Southern California workers who would have otherwise been unemployed. Together with design/engineering work for Phase II of the system, it will provide the equivalent of over 57,000 full-time, one-year jobs (or multi-year employment for approximately 15,200 workers). Construction of the Anaheim Regional Intermodal Transportation Center (ARTIC) will create an additional 3,500 to 5,000 jobs in Orange County based upon estimated project costs of \$179m.
- By 2035, high-speed rail will attract over 127,000 permanent jobs to Southern California that would not have otherwise been created, thanks to the region's increased livability and enhanced transportation network. The opportunity to locate these jobs near HSR stations and other transit hubs is valuable and should be encouraged through supportive zoning and additional policy incentives. Compared to other metropolitan areas with HSR corridors, the percentage of Southern California jobs located in or near downtown areas/CBDs is low. The concentration of business and industry around HSR stations would be reciprocally beneficial both to system ridership and the regional economy. The sectors in Southern California most conducive to this type of clustering and agglomeration benefits include health care and financial/real estate services.
- The CAHSR system would be a major catalyst for the continued expansion of Southern California's emerging "green" economy, which from 1995 to 2008 dramatically outpaced the average statewide rate of employment growth, according to a recent study by Next 10, a San Francisco-based think tank. The green economy includes new goods and services related to energy efficiency and production, high-performance building/construction materials, and low-emission vehicles/equipment, among others. 77% of the new permanent jobs in Southern California attributable to HSR would be created in sectors with a high concentration of fast-growing "green" specializations.

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- High-speed rail would prevent the emission of nearly half a billion pounds (220,000 metric tons) of CO<sub>2</sub> annually by 2035, based on the number of intraregional auto trips diverted to HSR. An additional three billion pounds of CO<sub>2</sub> (1,365,300 metric tons) would be creditable to the SCAG region as a net reduction in CO<sub>2</sub> emissions under SB 375 implementation guidelines currently being drafted by CARB, based on the number of long-distance, interregional HSR trips originating or ending in Southern California. In Orange County alone, the annual net reduction from both intra- and interregional HSR trips in 2035 would total over one billion pounds (463,715 metric tons), or over one-third of the SCAG total, based on estimated ridership to and from the intermodal Anaheim HSR station during Phase I of CAHSR operations.

- HSR commuters who ride at least four times a week would directly benefit from increased levels of physical activity from walking and/or biking for some portion of their trip. Improved health outcomes attributable to HSR, achieved in tandem with the development of walkable, transit-oriented communities, would total between \$50 million and \$132 million in reduced medical costs over a fifteen-year period (2020-2035, discounted in 2010 dollars at 4%), depending on the ridership scenario.

- The amount of land currently zoned at an appropriate level of density to qualify for SB 375's "transit-priority" incentives—within one-half mile of a major transit stop or corridor—remains too low to make an appreciable difference on future regional development patterns. The cooperation of local governments in modifying zoning and land use codes will be key to implementing the Sustainable Communities Strategy element of SB 375.

- Assuming additional land is rezoned for higher residential densities, the restrictive conditions attached to SB 375's "Sustainable Communities" project designation will increase project costs for the private developer, effectively diluting the value and effectiveness of the regulatory relief from CEQA review provided under the law. Therefore, local governments must step in with additional incentives to make high-density TOD financially viable, especially for affordable housing projects, either through contributions of city-owned land or publicly-sponsored financing for associated parking or open space amenities.



# SUMMARY OF FINDINGS

- The large amounts of new parking required at HSR and existing commuter rail stations in Southern California, estimated at over 14,000 spaces under conventional traffic modeling conducted by the CHSRA, could be partially reduced with low-cost connectivity concepts that would deliver commuters to HSR stations via other modes. Some of the funds that would otherwise go toward the construction of parking facilities, estimated to cost as much as \$565 million for Phase I (\$40,000 per space), could be diverted to support these alternative mobility networks.
- Parking structures at HSR stations could be designed and constructed as air rights projects, capable of accommodating increased building densities in the future, with housing, retail, and office uses progressively added to the structures as the market demand for transit-oriented development increases in a given market. These types of structures could not only mitigate the potential negative urban design consequences of conventional parking facilities, which tend to crowd out pedestrian-oriented uses, but the sale of air rights could help local governments recoup some or all of the capital costs of construction.



# CALIFORNIA HIGH-SPEED LINES





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