

PREFACE

Like the Portland streetcar, the Seattle streetcar was built as a redevelopment and economic development tool in a commercial and industrial neighborhood near downtown Seattle with enormous redevelopment potential. Property owners put up half the total \$52.9 million cost. Photo by Keith Brofsky



THE SEATTLE CASE STUDY: THE SOUTH LAKE UNION STREETCAR

THE SEATTLE STREETCAR IS confirming most of the theories suggested by the example of the Portland streetcar and other recent projects chronicled in this book – Tampa, Kenosha, San Francisco and Little Rock. Built as a redevelopment and economic development tool in a close-in commercial and industrial neighborhood adjacent to downtown that had been targeted for redevelopment – just like all the other recent streetcar projects – the Seattle streetcar was outperforming ridership projections (1,000 riders a day) in a neighborhood that offered enormous development potential. The Seattle City Council voted three months after the line opened to build a regional streetcar network with four more lines through downtown neighborhoods.

Financed and built in just 3.5 years with half the money put up by adjacent property owners, the streetcar travels a 1.3-mile route from the downtown retail core through the Denny Triangle and South Lake Union neighborhoods to a waterfront park on Lake Union, a 10-minute ride. The line had attracted significant development along its route in the South Lake Union neighborhood by 2008. Microsoft co-founder Paul Allen's Vulcan Real Estate company owned 60 acres near the Lake Union shore, and Vulcan had built 7,500 housing units and more than 2 million square feet of commercial/biotech and mixed-use projects, with another 1.3 million square feet under construction.

While the economy and real estate market slowed in Seattle as elsewhere in the U.S. in 2008, the city was named the No. 1 real estate market for investors in ULI's 2009 "Emerging Trends in Real Estate" report, based on interviews with 600 real estate experts nationwide. The New York Times noted the tenants moving into South Lake Union were a "who's who" of Seattle.

Nearly all projects were being built to LEED (Leadership in Energy and Environmental Design) green building standards.

While property owners put up \$25.7 million of the total \$52.9 million cost of the streetcar, the other half came from federal and state grants and funds from the sale of surplus city properties in South Lake Union. No General Fund monies were to be used for operations, estimated to cost \$2 million a year. A sponsorship program was expected to generate about \$500,000 a year, and the balance would be paid for out of transit funds freed up when a new light rail line made some bus service redundant. The cost per mile was calculated to be \$40 million; a \$4.3 million maintenance facility would also accommodate system extensions. The \$52.1 million total included \$36.7 million for construction, \$25.7 million for planning, design and environmental review, and \$9.2 million for vehicles.

Development in the South Lake Union neighborhood was being used to help pioneer the brand-new LEED-ND (LEED for Neighborhood Development) standard, which broadens the certification program to rate not just buildings but entire neighborhoods. LEED-ND criteria rank neighborhoods according to the sustainability of location, density, affordability, walkability, energy efficiency, automobile use, jobs-housing mix, and stormwater run-off, among other characteristics. Vulcan was also touting its "triple bottom line" approach to real estate, promising to measure success according to community, environmental and financial accountability.

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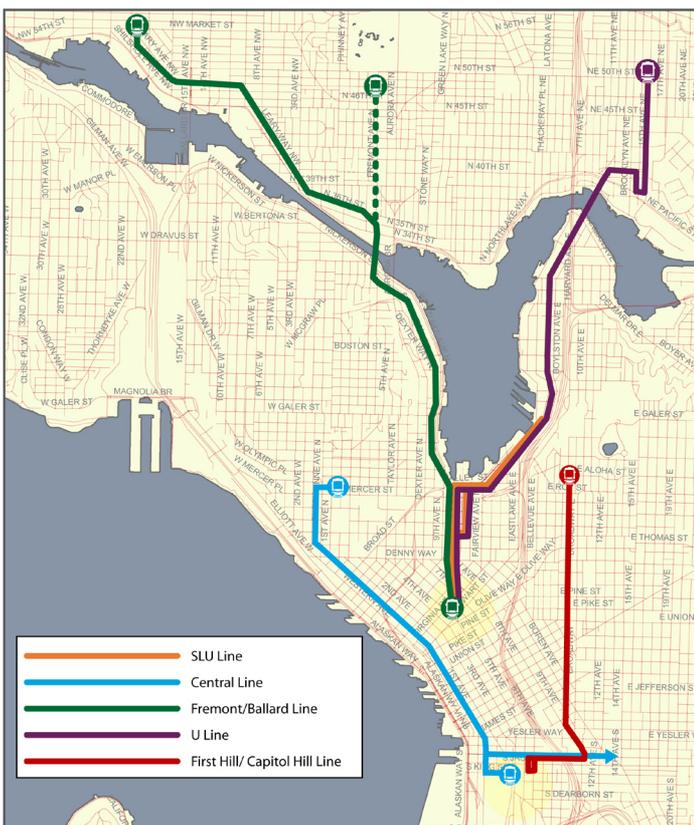
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STREETCAR NEIGHBORHOODS: THE GREENEST AND MOST EQUITABLE OF ALL?

Streetcar neighborhoods were, in fact, proving to be quintessentially “green.” Portland had demonstrated the streetcar’s ability to attract and shape development that was compact, walkable, high-density, and mixed-use, with a very-high-quality streetscape. A study by E.D. Hovee estimated this kind of development reduced the carbon footprint by 60 percent over conventional suburban development – providing a 76 percent reduction in transportation-related GHG emissions and reducing the development footprint by 46 percent. The streetcar was being extended a fourth time, across the Willamette River into the Lloyd District. A new plan for that 35-block neighborhood by Mithun Architects would triple the developed square footage while reducing its “environmental signature” to that of a pristine forest without human presence.

South Lake Union was also being touted as an example of the “New Localism” – the recycling of an older neighborhood that provides residents with access to locally grown and produced foods, small locally owned businesses, green buildings and a reduced carbon footprint, and many amenities. The neighborhood

SEATTLE STREETCAR SYSTEM



The City Council voted just three months after the streetcar line opened to build a regional streetcar network with four more lines through downtown neighborhoods. Riders said that until the streetcar, South Lake Union, Denny Triangle and downtown hadn't seemed so close to each other.



The Savannah streetcar was built for just \$1.5 million and has no overhead wires, drawing power instead from an onboard biodiesel generator. Photo by Gary Landrio/TranSystems

THE SAVANNAH CASE STUDY: A HYBRID STREETCAR

THE SAVANNAH STREETCAR provided a new twist to the streetcar story when it opened in December 2008. The single, refurbished 1936 car draws its power from an onboard generator running on biodiesel produced in part with cooking grease from local restaurants. Built for 1.5 million – far less than any other recent streetcar project – the hybrid eliminates the need for expensive overhead wires and power systems. It runs on a mile of single track along historic River Street, serving seven stops in the Savannah’s bustling, cobblestoned entertainment district.

The city paid \$600,000 for a little-used 2.3-mile railroad branch line, \$300,000 for concept development and engineering, and \$397,000 to build the hybrid energy propulsion system, restore the car, and make it ADA-compliant. To help keep expenses down a firehouse was converted into the car barn, for a total cost of \$200,000.

The city began planning the streetcar in 2003 with the goal of providing tourists with better access downtown – but without widening streets or adding parking. Savannah has been converting its city fleet to alternative fuel vehicles in order to reduce the government’s carbon footprint by 15 percent by 2012, and the streetcar made its debut in an annual Climate Action parade. The Savannah streetcar is this country’s first hybrid streetcar.

It’s “a Prius on steroids – it’s 21st century technology in a 72-year-old body,” says Gary Landrio of TranSystems. Landrio says the streetcar accelerates as fast as historic PCC cars and uses 1.5 gallons of biodiesel an hour.

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included a 12-acre lakefront park, public open space, wide sidewalks, outdoor seating for restaurants, large plazas, and access to kayaking, sailing, hiking and biking, as well as schools, museums, arts and entertainment. Riders said South Lake Union and Denny Triangle had never – until the streetcar – even seemed to be close to each other or to downtown.

Like Portland’s Pearl District, Seattle’s South Lake Union had the panache of a “creative class city” appealing to the young and urbane. While the economy and real estate market had slowed in Seattle as elsewhere in 2008, the city was named the No. 1 real estate market to watch in ULI’s 2009 “Emerging Trends in Real Estate” report, and the *New York Times* noted the

Given the troubled economy in 2009, all bets were off on when South Lake Union would reach its goal of 25,000 jobs and 11,000 housing units. But if any neighborhood was well-positioned in the New Economy it was South Lake Union, with a healthy mix of jobs and housing and easy transit access – by streetcar, light rail, monorail and bus.

city’s Metro Transit Hub, and the bus terminal. Many new tenants said transit was a key reason they moved there.

Some cities were pitching their streetcar projects as a way to increase affordability. Los Angeles, for example, was selling its streetcar project as an economic development tool that created good-paying jobs and made living downtown affordable, even for low-wage workers. More than a quarter of all housing in Portland’s Pearl was affordable. Vulcan paid \$6.3 million into an affordable housing fund in exchange for a waiver of height restrictions for three 12-story buildings that would

house Amazon.com, and which included 1.6 million square feet of office with a long strip of 25 shops and restaurants with sidewalks, outdoor seating, and public plazas large enough for a farmers market. The city was deliberating whether to provide for other upzonings in order to achieve higher densities and affordable housing.

The firm of Shiels Oblatz Johnsen had managed both the Portland and Seattle projects, and SOJ principal Ken Johnsen explained the two most important “lessons learned” at the Los Angeles streetcar workshop: First, that the private sector needs to step up with funding and support, understanding that an increase in property values will provide a return on their investment. And second, that it’s crucially important to keep the project simple, cheap and fast because streetcars are not supposed to be as complicated, costly or disruptive as other rail systems. “It’s not a \$1 billion light rail project. It’s not a ten-year effort,” Johnsen said. “It’s ready-fire-aim! Just do it! The tendency is to grapple these projects to death.”



Amazon.com headquarters will occupy 11 buildings on six blocks in the heart of South Lake Union, and there will be a 12-acre campus for the Bill and Melinda Gates Foundation, the Fred Hutchinson Cancer Research Center, a research campus for the Seattle’s Children’s Hospital and Regional Medical Center, and the biomedical research campus of the University of Washington’s School of Medicine. Photo by Lara Swimmer/Swimmer Photography

tenants Vulcan was attracting were “a who’s who of Seattle.” In addition to corporate headquarters for Amazon.com (11 buildings on six blocks in the heart of South Lake Union), there would be a 12-acre campus for the Bill and Melinda Gates Foundation, the Fred Hutchinson Cancer Research Center, a research campus for the Seattle Children’s Hospital and Regional Medical Center, the biomedical research campus of the University of Washington’s School of Medicine, and REI, the retailer of outdoor gear.

Given the troubled U.S. economy heading into 2009, all bets were off on when South Lake Union would reach its goal of 25,000 jobs and 11,000 housing units, but if any neighborhood was well-positioned in the New Economy it was South Lake Union. The neighborhood would provide a healthy mix of jobs and housing, and easy access to downtown and to transit, including the streetcar, a new light rail line, the monorail, the



Greenest: Portland’s streetcar was being extended into the Lloyd District, where a plan would triple developed square footage while reducing its “environmental signature” to that of a pristine forest without human presence. By Mithun Architects

