

September 2014

Downtown Los Angeles Streetcar Economic Analysis

Executive Briefing

INTRODUCTION

Understanding that a new streetcar system will enhance the long-term competitive position of Downtown Los Angeles and the LA region as a whole, Los Angeles Streetcar, Inc., a non-profit organization, retained AECOM to estimate the economic impact of the proposed Downtown Los Angeles Streetcar.

The Downtown Los Angeles Streetcar (Streetcar) is currently studying several route alternatives. The route option used for this economic study is a 3.4 mile loop connecting the Civic Center, Historic Core, Fashion District, Financial District, Staples Center and L.A. Live, the Convention Center, South Park, and the Jewelry District. It does not include the proposed Grand Avenue extension, which remains an option but is not currently funded via the Downtown-approved Community Facilities District.

The economic activity created by the Downtown Los Angeles Streetcar will include the impacts from one-time construction and recurring operation of the Streetcar itself, as well as the induced impacts resulting from the development of new commercial and residential property, reactivation of underutilized properties, creation of new businesses and jobs, increased numbers of Downtown residents, increased Downtown tourism, increased numbers of local and overnight visitors, and spending by these new employees, residents, and visitors.

These impacts have been measured against an assumed baseline growth rate for Downtown, as determined by historic trends for office, residential, and visitor and convention attendance over the past fifteen years combined with forecasts considering current and future economic conditions. As a result, the impacts discussed herein are specific estimates of induced development to the Downtown region for the next 30 years specifically resulting from or supported by investment in the Downtown Los Angeles Streetcar.

In Downtown Los Angeles, the Streetcar will support and induce more than \$1.6 billion in new development, over 25,000 jobs in the City of Los Angeles, and millions of dollars in new city and county tax revenues.

Specific impacts include:

- Development of 784,000 square feet of new and renovated office space valued at \$259 million
- Development of 4,500 new housing units, providing housing for 7,400 new residents, valued at \$1.337 billion
- Development of 126,000 square feet of retail, entertainment, and hospitality-related uses by the end of the study supported by new spending by employees, residents, and visitors to Downtown, valued at \$31 million
- 7,700 new hotel room nights from business and convention visitors annually by the end of the study period
- 9,400 new construction jobs* in Downtown alone (for streetcar, commercial, and residential construction) over the study period, and more than 17,400 construction-related jobs in the City of Los Angeles
- 4,700 permanent new office, retail, entertainment, and hotel jobs located Downtown by the end of the study period, and more than 8,500 total jobs in the City of Los Angeles
- \$87 million in unrestricted tax revenues to the City of Los Angeles during the study period

* Construction jobs are reported in job-years (one year of one job) throughout this report, indicated with an asterisk (*)

- \$67 million in restricted tax revenues to LAUSD and Los Angeles Community Colleges during the study period

With an initial capital investment of \$200 million and annual operating expenditures of approximately \$7 million, the Downtown Los Angeles Streetcar has the potential to induce significant new activity in Downtown Los Angeles, throughout the city, and across the county, state, and nation. The results of this study are presented below in table format.

Table 1: Streetcar-induced Downtown Development

Use	New Development	Construction Value
Office	784,000 SF	\$259 million
Residential	4,500 units	\$1,337 million
Retail, Entertainment, Hospitality	126,000 SF	\$31 million
Hotel nights (annual)	7,700 room nights	-
Total Construction Value		\$1.627 billion

Estimates show only the incremental growth induced by the Streetcar, above the projected baseline growth in Downtown Los Angeles. New construction values represent totals at the conclusion of the study period. Construction of the Streetcar itself is estimated at \$200 million but is not included in the total.

Table 2: Job Impacts

	<u>Permanent Jobs</u>		<u>Construction Jobs</u>	
	Incremental	Cumulative by Region	Incremental	Cumulative by Region
City of Los Angeles	8,500	8,500	17,400	17,400
Los Angeles County	+300	8,800	+600	18,000
California	+1,100	9,900	+3,700	21,700
United States	+2,800	12,700	+7,000	28,700
Total	12,700	12,700	28,700	28,700

Jobs include direct, indirect, and induced employment. Permanent jobs refer to the number of ongoing jobs supported annually by the end of the study period. Construction jobs are reported in job-years (one year of one job).

Table 3: Cumulative Tax Impacts over the Study Period

	<u>Unrestricted Tax Revenues</u>				<u>Restricted</u>
	Sales & Parking	Hotel	Property Taxes	Total	Property Taxes
City of Los Angeles	\$10 million	\$4 million	\$73 million	\$87 million	\$67 million
Los Angeles County	\$15 million	-	\$68 million	\$83 million	*
California	\$66 million	-	-	\$66 million	-
Total by Category	\$91 million	\$4 million	\$141 million	\$236 million	\$67 million

* Additional restricted tax revenues will accrue to Los Angeles County, but they are not calculated in this analysis. Values are the cumulative tax revenue totals over the entire 30-year study period. Revenues only accrue to the region specified and are not additive across regions. Values are reported in constant 2014 dollars. There are no tax impacts to the US for the selected revenue categories.

This economic impact assessment of the proposed Downtown Los Angeles Streetcar was prepared by the Economics team at AECOM, led by Gaurav Srivastava (Project Director) and Christine Safriet (Project Manager), with Lance Harris and Kevin Feeney.

THE ROLE OF STREETCAR IN DOWNTOWN LOS ANGELES

The past fifteen years have been a period of intense urban revitalization for Downtown Los Angeles – a revitalization that has persisted even in the face of the largest economic downturn since the Great Depression. The City’s Adaptive Reuse Ordinance, passed in 1999, sparked significant redevelopment activity, facilitating the transformation of many historic Downtown office buildings into lofts, apartments, and condominiums. In addition to the creation of new mixed-use developments in other parts of Downtown, this urban renaissance has attracted thousands of new residents to the area, catalyzed the creation of round-the-clock cultural, entertainment, and sporting activities and services, leading to a greater variety of retail and dining options, as well as organized community events like Downtown Art Walk. Still, Downtown Los Angeles continues to be characterized by distinct, well-defined neighborhoods, rather than being seen and experienced as one cohesive Downtown district.

The proposed Downtown Los Angeles Streetcar is a local transportation circulator system that will serve to unify Downtown Los Angeles as an interconnected destination for living, working, and enjoying leisure activities. Unlike the regional heavy-rail and light-rail systems that are designed to bring commuters and other riders into Downtown – such as Metrolink, the Metro Red, Purple, Blue, Gold, and Expo Lines, and the planned Regional Connector – the Streetcar will provide fixed-rail connectivity within Downtown. With the addition of the Streetcar, passengers will enjoy convenient and predictable service that circulates riders within Downtown, connects the numerous Downtown neighborhoods, and facilitates multiple-destination trips around Downtown.

Some examples of how the Streetcar would serve Downtown Los Angeles include:

- Downtown residents, and visitors and commuters entering Downtown via regional rail and bus lines, will be able to conveniently access major employment centers in South Park, the Financial District, the Historic Core, Civic Center, and the Fashion District without needing to drive or park.
- Downtown workers will be able to use the Streetcar to easily access numerous Downtown neighborhoods for lunch, dinner, or special events.
- Visitors to Downtown are more likely to park once to conduct business and enjoy Downtown restaurants, shopping, and other activities before and after events at the Staples Center, L.A. LIVE, Walt Disney Concert Hall, MOCA, Grand Park, or the many other museums, theaters, and galleries along the Streetcar route. The predictability and comfort of fixed-rail transit will encourage transit use among many infrequent Downtown visitors who find the current bus and DASH system relatively confusing and uncomfortable.
- Renovation of the historic buildings and theaters along Broadway and elsewhere along the route is likely to be increasingly successful due to higher accessibility, visibility, and visitation enabled by the Streetcar.
- Safe and easy access to off-site parking via the Streetcar will provide a tremendous benefit for restaurants, bars, and entertainment venues located along the Streetcar route, many of which lack desirable parking options compared to competitive venues in other parts of the City and region.
- The Streetcar will encourage walking by reducing the time it takes to go from one destination to another on foot. Increased pedestrian activity provides direct benefits to economic development, health, and environmental sustainability.
- The Streetcar provides a critical linkage in the Convention Center’s strategy to provide more convenient hotel access to delegates and attract larger groups and meetings. For example, the 680-room Millennium Biltmore Hotel and the abundance of new boutique hotels along Broadway and throughout South Park will have a direct link to the Convention Center to better

serve convention delegates and provide them with expanded hotel and transportation options; right now, these hotels are too far from the Convention Center to adequately serve the needs of convention delegates.

The Streetcar will greatly improve connectivity Downtown, thereby making the area a stronger and more competitive regional destination. It also creates a unique infrastructure asset that would separate downtown from surrounding commercial centers by offering an improved, more walkable, vibrant urban street environment. While this benefit can be difficult to quantify, case study analyses indicate increased property values and improved leasing conditions for commercial properties in urban areas where modern streetcar systems have been established. The same is expected to be true in Downtown Los Angeles in the short term of 5 to 10 years, with effects becoming more apparent over the course of the next three decades. The result will be more dense employment, more residents, and more shopping, dining, entertainment, and cultural venues within the central core of California's largest city, *over and above anticipated Downtown growth without the Streetcar*. Combined, this translates into more business and economic development activity spurred by the Streetcar system, including:

Table 3: New Local Spending

Source	Annual Spending
New Leisure & Convention Visitors	\$5 million
New Office Employees	\$20 million
New Downtown Residents	\$26 million
Total	\$51 million

Values are reported for spending at end of study period in constant 2014 dollars.

Table 4: New Downtown Employment

Source	Construction Jobs	Permanent Jobs
Streetcar	700	40
Office	1,700	4,200
Residential	7,000	-
Retail, Entertainment, Hospitality	*	500
Total	9,400	4,700

* "Retail, Entertainment, Hospitality" construction jobs are included in office and residential construction job estimates. Construction jobs are reported in job-years (one year of one job). Permanent jobs refer to the number of ongoing jobs supported annually by the end of the study period. Total Jobs are rounded to nearest 100, and may not sum due to rounding.

CONSTRUCTION AND OPERATION of the Downtown Los Angeles STREETCAR will have a direct and immediate positive impact on the City's economy.

With an estimated construction cost of \$200 million for new track, cars, power, stations, streetscape improvements, and related transportation infrastructure, the Downtown Los Angeles Streetcar will inject nearly \$127 million of this budget directly into the City of Los Angeles's economy over the next four years for purchases of construction, engineering and other professional services and a small share of materials and equipment (the remainder will be spent outside of the City). Design and construction of the Streetcar alone will create approximately 750 direct construction jobs* in Downtown, creating additional indirect and induced jobs across the City and County of Los Angeles.

With an estimated annual operating budget of approximately \$7 million, Streetcar operations will support over 40 direct jobs in Downtown Los Angeles on an annual basis, with positions for operators, maintenance workers, security, and back-office support services. Including indirect and induced spending impacts of these workers, the Streetcar will support additional jobs across the City of Los Angeles.

The Streetcar will strengthen and expand the Downtown COMMERCIAL OFFICE & BUSINESS MARKET.

The Streetcar will speed commercial real estate leasing and sales, support stronger rent and occupancy growth, and induce new firms to locate in Downtown Los Angeles. Some of these firms will be new to both Downtown and the City of Los Angeles, while others may relocate from other areas of the city or region.

Because of its fixed-rail service, which is a permanent asset to adjacent real estate, over the 30-year period from 2016 to 2045, the Streetcar will likely induce the development of 784,000 square feet of additional office and support additional new ancillary businesses, including retail, restaurant, professional service, and entertainment venues along the route. More than 4,200 permanent new office workers are expected to occupy the new and renovated development, supporting additional jobs across the City of Los Angeles and region.

Construction and rehabilitation related to new office and ancillary businesses will create 1,700 direct construction jobs* in Downtown Los Angeles during the next thirty years and support additional indirect and induced jobs across the city and region.

New firms locating Downtown will bring clients, staff, and vendors from outside the region to their offices. Many of these business visitors will spend the night in Downtown hotel accommodations, generating demand for thousands of new room nights annually by the end of the study period, with associated hotel tax revenues accruing to the city's General Fund.

New office workers and business visitors will spend an estimated \$20 million annually on food and beverage, entertainment, shopping, hotels, and parking in Downtown. These expenditures are expected to support additional new jobs across Downtown. Cumulative sales tax and parking revenues related to office development will accrue to the city's General Fund over the course of the study period.

NEW RESIDENTS will be attracted to the convenience of a more accessible, expansive Downtown.

By linking relatively disconnected Downtown districts, particularly South Park and the Fashion District, to regional transit systems, local and regional office and employment centers, and nearby entertainment and leisure destinations, the Streetcar will further establish Downtown as a centrally-located, high-value residential neighborhood. Over the next 30 years, the Streetcar will support demand for 4,500 additional housing units with an estimated population of 7,400 new residents. This growth is over and above Downtown's expected baseline residential growth over the same time period.

Construction of new housing and supporting retail and restaurant establishments will create 7,000 direct construction jobs* in Downtown, as well as additional indirect and induced jobs within the City of Los Angeles and across the region. New property tax revenues from this development will accrue to the

city's and county's General Fund over the study period; additional property taxes will accrue to restricted educational funds at both the city and county.

At build-out, new residents will spend an estimated \$26 million annually on food, beverage, and retail purchases in Downtown Los Angeles, supporting additional development and new jobs in supportive retail and food and beverage industries. Direct spending at Downtown establishments will result in additional sales tax and parking tax revenues accruing to the city's General Fund. Household spending by new Downtown residents will support additional indirect and induced jobs across the city and region.

Conventions, entertainment and cultural venues, restaurants and bars, and retail stores all gain from increases in the number of DOWNTOWN VISITORS.

By creating a more connected and accessible Downtown, the Streetcar is likely to induce higher delegate attendance at the Los Angeles Convention Center. Streetcar is estimated to support a one percent increase in convention attendance, resulting in new Downtown hotel room nights and related direct spending at Downtown retail, entertainment, and food and beverage establishments. These changes are likely to occur within the first five years of Streetcar operations.

The Streetcar will also promote a "park-once" mentality by providing frequent, easy connections between destinations within the Downtown region, inducing local and regional visitors to increase their length of stay in Downtown. As a result, the Streetcar will induce more than \$5 million in new spending on food and beverage, retail, and other purchases by visitors. These expenditures will support additional new jobs Downtown. Over the study period from 2016 to 2045, millions of dollars in cumulative sales, hotel, and parking tax revenues will accrue to the City's General Fund and to restricted funds from Streetcar-related convention and leisure expenditures.

ANALYTICAL FRAMEWORK

This study reflects findings from a literature review, interview process, and quantitative analysis. An extensive literature review was conducted to examine current and relevant studies and reports, both academic and professional, attempting to quantify and qualify the economic impacts created by streetcar development and operations. Local stakeholders and developers that are likely to be impacted by the Streetcar were interviewed. The market history of office, retail, and residential development in Los Angeles were reviewed, with a focus on specific factors affecting Downtown Los Angeles. With this information in hand, baseline market growth for office, residential, and visitor-serving uses was projected before and after introduction of the Streetcar; estimated local spending and adjusted Downtown and City capture rates based on best available data; and used the IMPLAN regional economic impact model to generate total impacts to Downtown and the City of Los Angeles, as well as to Los Angeles County, the State of California, and the United States as a whole. Impacts are quantified as new jobs and associated earnings, new spending at Downtown retail, restaurant, and hotel establishments, and number of new residents and visitors to Downtown.

Literature Review: The literature review confirmed that for properties located within walking distance of an access point (such as a streetcar station), the introduction of a rail-based transit system will ultimately have a positive influence on property value and development. Benefits associated with close proximity to transit are thought to be greatest in fast-growing, congested areas with a buoyant economy and transit-supportive public policies. At the same time, supportive local policies and demographics, well-designed stations, efficient and effective systems, and a strong real estate market are all key factors

that allow transit to have a significant effect on property value and development. While the effect of transit on property value and development varies, the following general principles are constant:

- Rail-based transit can have a positive effect on property value.
- Properties within walking distance of a station experience the greatest benefit.
- Properties located in densely populated settings experience greater price premiums.

Interview Findings: For additional insight, local stakeholders and developers, as well as the executives from the Los Angeles Convention Center and Visitors Bureau, were interviewed. The consensus is that streetcars benefit local businesses and convention operations by providing a convenient and affordable transportation option for both residents and visitors. Residents commonly use streetcar or light rail to attend sporting events and frequent entertainment districts, while tourists and convention delegates are given added incentive to patronize businesses and hotels within walking distance of the line. Additionally, streetcar and light rail operations provide free branding and marketing opportunities for host cities, allowing them to further define the unique nature of their offerings for a more compelling visitor experience.

Development Forecast: A key task in the assessment of economic impact is real estate market assessment of likely impacts on development and renovation within the Los Angeles Central Business District. This task required several steps in order to develop projections for Downtown Los Angeles. First, the study area was defined as the region bordered by the 101 Freeway on the north, the 110 Freeway on the west, Interstate 10 on the south, and Los Angeles Street on the east.

Detailed data on office space construction, occupancy and absorption in the study area were examined over the past 20 years to calculate the long-term growth in office supply in five-year increments. A Baseline scenario forecast of Downtown office construction was developed for the next 30 years (2016 to 2045), based on historic five-year averages and adjusted for current economic conditions and typical real estate cycles. A second development scenario, Streetcar, was prepared in a similar manner, forecasting office construction after introducing Streetcar improvements to Downtown Los Angeles. Scenarios were informed by the literature review, interviews, and the team's expertise and experience analyzing urban transit impacts on real estate development. In total, Streetcar is estimated to induce an additional 5.5% of new office development above the Baseline Scenario over the study period.

The induced office development impact of the Streetcar is the difference in amount of constructed office space between the Baseline and Streetcar scenarios. This value then serves as the basis for estimating the number of additional new Downtown office employees, associated retail and restaurant spending, new hotel room demand by business users, and the additional ancillary service space and employment required to service the new business activities, including retail, food and beverage, etc. Construction cost factors were estimated using multiples sources, including consultation with AECOM's Cost Consultancy experts, RS Means, and local developer interviews.

A similar process was used to estimate the impact of the Streetcar on Downtown residential development and ancillary services, with the historic construction average based upon a 15-year history combined with the pipeline of residential units that are currently under construction, permitted, planned, and proposed. This timeframe was selected because the current Downtown housing environment was significantly impacted by adoption of the Adaptive Reuse Ordinance in 1999, while more recent and pending development activity has been significantly higher than historical trends. In total, Streetcar is estimated to induce an additional 13.0% of new residential unit development above the Baseline Scenario over the study period.

Impact Analysis: This study relies on an input-output model to estimate the total economic impact resulting from construction, operation, induced visitation, and new office and residential construction that would be supported by the proposed Downtown Los Angeles Streetcar. Input-output analysis examines relationships within an economy, both between businesses and between consumers and businesses. The analysis captures consumptive market transactions and estimates the resulting indirect and induced economic effects, and produces quantitative estimates of the magnitude of regional economic activity resulting from a specified change in the regional economy. Input-output models rely on multipliers that mathematically represent the relationship between the initial change in one sector of the economy (such as the introduction of the Streetcar, or construction of new commercial and residential structures) and the effect of that change on other regional industries.

A few key terms are defined as follows: *Output* represents the change in regional sales or industry revenues. *Employment* represents the change in the number of jobs in the regional economy resulting from a change in regional output. Because construction jobs generally occur within a specific timeframe, they are framed in job-years. A construction job-year is equivalent to one job for one year. In this study, the expected construction period for the Streetcar is approximately two years, from 2016 to 2017. On the other hand, operational impacts are reported as traditional jobs, with the expectation that the job is permanent and on-going into the future. The Streetcar is projected to become operational in 2018. *Employee compensation* represents the change in gross employee wages and salaries in the regional economy resulting from a change in regional output.

Changes in output, employment, and earnings are broken down into three distinct components. The *direct effect* represents the change in output attributable to a change in demand or supply. For example, total expenditures associated with the Streetcar and captured by business and employees in Los Angeles would represent the direct impact of the Streetcar on the regional economy. The *indirect effect* results from industry-to-industry transactions. This effect is a measure of the change in the output of suppliers linked to the industry that is directly affected. For example, the Streetcar will purchase goods and services from Los Angeles County suppliers, who in turn make purchases from their own upstream suppliers. When the Streetcar begins construction and then regular operations, direct and indirect suppliers will experience an increase in demand for their goods and services. The *induced effect* consists of impacts from employee spending in the regional economy. Employees of the Streetcar and affected businesses contribute to this effect. The *total impact* is the sum of the direct, indirect and induced effects. The total effect measures the impact of an activity as it ripples throughout the regional economy.

GENERAL LIMITING CONDITIONS

Understanding that a new streetcar system will enhance the long-term competitive position of Downtown Los Angeles and the LA region as a whole, Los Angeles Streetcar, Inc., a non-profit organization, retained AECOM to estimate the economic impact of the proposed Downtown Los Angeles Streetcar.

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 AECOM and that may affect the estimates and/or projections noted herein. This study is based on estimates, assumptions and other information developed by AECOM 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.

This report is based on information that was current as of August 2014 and AECOM has not undertaken any update of its research effort since such date.

Because future events and circumstances, many of which are not known as of the date of this study, may affect the estimates contained therein, no warranty or representation is made by AECOM that any of the projected values or results contained in this study will actually be achieved.

Possession of this study does not carry with it the right of publication thereof or to use the name of "AECOM" in any manner without first obtaining the prior written consent of AECOM. No abstracting, excerpting or summarization of this study may be made without first obtaining the prior written consent of AECOM. This report is not to be used in conjunction with any public or private offering of securities, debt, equity, or other similar purpose where it may be relied upon to any degree by any person other than the client, nor is any third party entitled to rely upon this report, without first obtaining the prior written consent of AECOM. This study may not be used for purposes other than that for which it is prepared or for which prior written consent has first been obtained from AECOM.

This study is qualified in its entirety by, and should be considered in light of, these limitations, conditions and considerations.