



APPENDIX B. ECONOMIC DEVELOPMENT TECHNICAL MEMORANDUM

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MEMO



To: Robert Forrest
From: HDR Project Team
Date: March 2016
RE: **South Central Light Rail Extension Project**
Economic Development Technical Memorandum

This technical memorandum focuses on the potential local economic effects resulting from implementation of the Build Alternative. The South Central Light Rail Extension Project is anticipated to have direct, indirect and induced economic benefits related to construction and long-term operational expenditures. Furthermore, the project is anticipated to have a positive influence on property values, tax revenues and employment through the development of new high-density commercial, retail and residential space and through the adaptive reuse of existing buildings. These effects would be realized to varying degrees throughout the region, the city of Phoenix and the South Central Avenue corridor in terms of greater economic output, higher earnings, greater mobility and better employment.

1.0 EXISTING CONDITIONS

1.1 ECONOMIC DEVELOPMENT IN THE SOUTH CENTRAL LIGHT RAIL EXTENSION STUDY AREA

The South Central study area has a diverse mix of land uses driving the local economy. Most of the study area has low-density commercial development adjacent to the roadway, with single-family residential and industrial uses adjacent to or behind the commercial uses. Downtown Phoenix, in the northern portion of study area, is one of the region's largest employment centers and home to several financial and governmental institutions, including county and federal courts, and numerous major activity centers such as the Phoenix Convention Center, Talking Stick Resort Arena, and Chase Field. Over the last 15 years, Downtown Phoenix has transformed into a diverse and 24-hour destination with such developments as the ASU Downtown Campus, the Phoenix Biomedical Campus, and Cityscape, a high-rise mixed-use development. The Warehouse District, in the southern portion of Downtown Phoenix, has seen increased economic development with the conversion of old warehouses into office space, restaurants and housing. South of the warehouse district to Interstate 17, the corridor features predominantly single-family housing with little recent economic development. The Nina Mason Pulliam Rio Salado Audubon Center and the Rio Salado Habitat Restoration Area, both completed in 2009, resulted from over \$100 million in public and private investment. These developments were the largest recent investments in the study area. South of the Nina Mason Pulliam Rio Salado Audubon Center, the study area has predominantly industrial uses that have been operating in the area for quite some time. South of this area, these uses tend to give way to single-family housing again, with low-density commercial adjacent to the roadway.

The City of Phoenix has worked on multiple revitalization programs in the South Central study area. The Matthew Henson, Hope VI Revitalization Program was the City's initial revitalization effort, converting a public housing project into new housing, a community resource center and a youth center on the northwest corner of 7th Avenue and Buckeye Road. The Marcos de Niza family housing project at 3rd Avenue and Pima Street has recently been rehabilitated into family housing with several social service amenities, such as a local senior center. A proposed large-scale development called Plaza de las Culturas on a large vacant parcel on the northwestern corner of Pioneer Street and Central Avenue may continue this type of revitalization.

1.2 ECONOMIC DEVELOPMENT ALONG THE EXISTING LIGHT RAIL SYSTEM

The existing light rail starter line running through portions of Phoenix, Tempe and Mesa has generated significant economic development that includes higher densities, greater intensities and more transit- and pedestrian-friendly development. Since construction began in 2005, over 200 projects worth approximately \$8.2 billion in economic development have occurred; \$6 billion of that amount represented private capital investment, with \$2.2 billion derived from public capital development. The new developments include over 15,000 residential units (1,300 of which are affordable) and almost 3,000 hotel rooms.

Most of these developments are focused in Downtown Phoenix, Downtown Tempe, the Central Avenue corridor north of Downtown Phoenix and the Apache Boulevard corridor in Tempe and Mesa. Projects such as CityScape in Downtown Phoenix and State Farm in Downtown Tempe have revitalized areas that were underutilized and lacking in vibrancy and activity. The increased residential density along the light rail corridor has made it possible for more people to live and work without owning a vehicle. Development at the Arizona State University campuses in Downtown Phoenix and Tempe and the biomedical campus in Phoenix has encouraged educational, medical and biomedical activity. These trends are projected to continue along the light rail corridor for the foreseeable future.

2.0 IMPACT ASSESSMENT

2.1 NO-BUILD ALTERNATIVE

The No-Build Alternative would maintain the status quo and, therefore, would not result in additional economic development above what is currently occurring. Existing economic conditions would continue and future economic development would progress in a manner similar to current activity.

2.2 BUILD ALTERNATIVE

2.2.1 Effects on Property Values

Previous studies around the country have illustrated how fixed-guideway transit facilities can have positive effects on surrounding property values. Empirical research shows that transit-oriented development yields social and economic benefits for communities. These community development benefits are typically reflected through the appreciation

of property values for both commercial and residential sectors, thereby resulting in increased tax revenues.

A study conducted in Dallas between 1997 and 2001 showed a 32.1 percent increase in the median value of residential properties near light rail transit (LRT) stations, as compared with a 19.5 percent increase in property values not near LRT stations (Weinstein and Clower 2002). Furthermore, the study showed office building values near LRT stations increased 24.7 percent as compared with only 11.5 percent for office buildings not near LRT stations. Similarly, a property value study in Santa Clara County (San Jose, California, and environs) found that the benefits of light rail accessibility were capitalized in commercial land values for properties within $\frac{1}{4}$ mile of a LRT station. The statistical results found a \$4 per square foot benefit for LRT station proximity (Weinberger 2001).

Based on development trends witnessed along Valley Metro's existing light rail line, the Build Alternative is expected to attract new, transit-supportive development within the project area. As of July 2015, approximately \$8.2 billion in new development has been completed or is under construction along the existing light rail alignment (within $\frac{1}{2}$ mile of a station), which does not include an additional \$342 million worth of planned projects. Approximately \$4.7 billion of this development has occurred along Phoenix's portion of the light rail line. The City's experience with light rail has proven that it can encourage development growth in areas better served by transit—driven by complementary land use and tourism policies—and have a positive effect on property values

2.2.2 Effects on New Development Locally

The Build Alternative is anticipated to have positive effects on both commercial and residential development located near light rail stations. It is anticipated that new development in the study area would capture an increasing share of residential and employment growth as densities increase. The project is an integral part of local plans by the City of Phoenix, such as the General Plan, and is identified in regional plans including the Maricopa Association of Governments *Regional Transportation Plan* as a fixed-guideway corridor for implementation as part of the region's future network of high-capacity transit corridors.

The area of analysis where economic effects associated with the proposed project are most anticipated to occur was a $\frac{1}{2}$ -mile radial area surrounding the proposed alignment and station locations. Current research on existing light rail systems in other metro areas including Dallas, Denver, Portland and Sacramento shows that the measureable economic impacts occur around access points, or stations, specifically within $\frac{1}{4}$ to $\frac{1}{2}$ mile. This is true for both changes in the value of existing development and the occurrence of new transit-oriented development.

Vacant, underdeveloped and potentially obsolete sites along the corridor provide ample opportunity for new development within the $\frac{1}{2}$ -mile study area surrounding the Build Alternative, conforming to the City's vision of a sustainable, transit-supportive urban development pattern. Phoenix has pursued an aggressive adaptive-reuse program, having established a program in 2008 that makes it easier and cheaper to reuse buildings in the city. Even with the density and intensity of existing development

throughout much of the corridor, parcels are available for redevelopment along the entire length of the Build Alternative that the City is interested in developing. The Maricopa Association of Governments' 2012 land use data show that approximately 277 acres of vacant land are within ½ mile of the proposed light rail alignment, plus additional acreage of surface parking lots prime for future redevelopment. A significant amount of land within ½ mile of the station areas is underutilized or developed with very low-density uses; this land would accommodate even more future development.

2.2.3 Effects on Tax Revenues, Employment and Overall Economic Growth

Construction and the continuing operation of the Build Alternative would represent a substantial capital investment in the local economy that is anticipated to positively influence economic activity. Market reaction to the availability of improved transit service is also expected to influence economic activity. Project construction would expand local earnings for the duration of the construction cycle. Operation of the Build Alternative is anticipated to stimulate local economic activity through increased earnings and output, particularly around light rail stations.

As the Build Alternative is primarily within existing ROW, it would mostly require partial acquisition of properties along the alignment. There are 5 full parcel acquisitions required for the project and the potential for 4 full parcel acquisitions for TPSS sites. The lost tax revenues associated with the small reduction in the tax base would recur on an annual basis. However, an increase in other tax revenues would offset such losses. The creation of new jobs and earnings associated with recurring operations and maintenance spending would foster greater retail spending. Additional revenues from this spending would be recurring gains.

The Build Alternative would displace one business and has the potential to displace a second business depending on the final selection of TPSS sites. As there is ample vacant and underutilized land within the study area, all efforts would be made to relocate these businesses within the corridor. If they are successfully relocated within the corridor, there would be no impact to sales tax revenue. If they are not relocated within the corridor, the minimal loss in sales tax revenue would likely be offset by the gains from new businesses opening or relocating to station areas and potential increases in sales tax revenues for current area businesses. The City of Phoenix has experienced significant growth in commercial and residential floor space surrounding the existing LRT alignment, contributing to growth in the sales tax base of the city.

Focused development in areas with existing infrastructure accrues benefits to the taxing jurisdiction. National experience with fixed-guideway rail transit systems has demonstrated that investments in transit infrastructure have positively affected residential and commercial development near stations. National studies have shown that business output and personal income are positively affected by transit investment and grow rapidly over time. These transit investment impacts create savings to business operations and increase the economy's overall efficiency, positively affecting business sales and household incomes.

The Build Alternative is anticipated to provide some long-term employment benefits by creating new and sustained employment opportunities. Additional workers would be needed to operate and maintain the Build Alternative and, should the system expand to

serve other areas of the city and region, additional employment could follow. The new jobs created to operate and maintain the Build Alternative would represent a long-term benefit, unlike the one-time capital construction spending. Long-term employment opportunities would likely be only partially driven by operations and maintenance of the system; long-term employment would more likely be attributable to indirect employment opportunities in retail, service and municipal services sectors that would result from the anticipated growth and increased densities within ½ mile of the light rail stations. Together, the short- and long-term jobs represent the direct effects of investment in the study area. The earnings of new construction and transit workers would translate into a proportional increase in consumer demand as these workers purchase goods and services in the region. A further increase of new employment across a wide variety of industrial sectors and occupational classifications is expected as employers hire to meet this increase in local consumer demand. This type of hiring represents the project's indirect impact.

The economic impact of expenditures for the Build Alternative would vary substantially by activity and would depend on the amount of goods and services procured locally. Several construction goods and services (labor, tools and materials such as concrete) would be purchased in the local economy, as would professional services (for example, engineering, design and other agency costs). Goods and services procured locally would have a direct impact on the local economy. Conversely, some materials and services would be procured from outside the city and county. Steel for rails would be procured from outside sources, and the purchase and manufacturing of vehicles would not occur locally. Transit vehicles are not manufactured in Phoenix or Maricopa County, and because local labor would not produce the vehicles, no local impact generated by their purchase would be realized by the local economy. Some assembly would be required upon delivery of the vehicles, and it is possible that local suppliers may make a component of the vehicles; however, these possibilities represent a negligible share of the vehicles' total cost and are excluded from this analysis. This analysis assumed that funding for operations and maintenance would be procured primarily from local funds and project-generated funds.

Potential joint development opportunities would provide benefits to transit users and transit agencies or local jurisdictions. The transit user would benefit from additional conveniences tied to the light rail station or adjacent land and from improved access to surrounding land uses. The City of Phoenix would control joint development on land adjacent to light rail stations. Joint development would potentially benefit the transit agency through increased funds and ridership resulting from increased convenience for patrons.

Transit facilities and stations that provide a comfortable, accessible, efficient and safe customer experience have proven successful in attracting riders, and many communities seek to incorporate transit facilities as part of future development plans. Physical and recognizable light rail stations provide a focal gathering point, and real estate near public transportation can therefore become more attractive to the development community, helping spur growth and revitalization. Closely related to neighborhood revitalization is the ability of transit-oriented development to attract new land investments and businesses at light rail station locations. In turn, new or relocating businesses can stimulate local job growth. New employment has a multiplier effect as

employees purchase goods and services from neighboring businesses, thereby spinning off other local jobs. Where sustained transit investment occurs, observations indicate that local economies generally benefit according to the following trends:

- A sustained investment in transit could potentially generate an increase of \$2 million in business output and \$0.8 million in personal income for every \$10 million in the short run (during year one).
- In the long run (during year 20), these benefits could increase to \$31 million and \$18 million respectively, for business output and personal income.
- It is also estimated that every \$10 million in capital investment in public transportation yields \$30 million in increased business sales, and that every \$10 million in operating investment in public transportation yields \$32 million in increased business sales (Cambridge Systematics, Inc. and Economic Development Research Group 1999).

Additionally, recent Federal Transit Administration research indicates that households in transit-oriented communities (within ½ to 1 mile of a fixed-guideway station) save an average of approximately \$250 per month or \$3,000 per year per household in automobile-related costs as compared with households in automobile-oriented areas. These savings are associated chiefly with the ability to walk to a wider range of destinations and, to a lesser extent, to access transit. Benefits stemming from transit investments are typically categorized into user and nonuser benefits. User benefits typically refer to benefits accrued to system users through reduced travel time and travel costs. The prevailing evaluation framework also recognizes nonuser benefits—benefits that accrue to nonriders, such as environmental benefits and employment impacts, among others. The nonuser benefit category reflects the belief that transit improvements generate external economies—public benefit accruing broadly in addition to the benefit accruing to direct users of the investment. Economic development benefits can accrue to residents and businesses (and other landowners), but may also accrue to the greater metropolitan area through increased tax revenues, improved land use and improved economic welfare.

The enhanced access and mobility that the Build Alternative would offer, coupled with potential investment in pedestrian-oriented development and implementation of transit-oriented development policies measures already adopted by the City of Phoenix, are likely to generate additional jobs in the study area. This would not only create new businesses but could boost the economic activity of existing businesses near the alignment as employees and visitors purchase goods and services. Thus, construction and operation of the Build Alternative could result in indirect spin-off economic growth.

3.0 REFERENCES

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