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## APPENDIX B. ECONOMIC DEVELOPMENT TECHNICAL MEMORANDUM

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To: Robert Forrest  
From: HDR Project Team  
Date: May 2018  
RE: **Northwest Phase II Light Rail Extension Project**  
*Economic Development Technical Memorandum*

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This technical memorandum focuses on the potential local economic effects resulting from implementation of the Build Alternative. The Northwest Phase II 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 Metrocenter area in terms of greater economic output, higher earnings, greater mobility and better employment.

## 1.0 ENVIRONMENTAL SETTING

### 1.1 ECONOMIC DEVELOPMENT IN THE BUILD ALTERNATIVE STUDY AREA

The Build Alternative study area has a diverse mix of land uses driving the local economy. Most of the study area has medium-density commercial and mid-rise office development adjacent to the major arterials streets, with residential uses adjacent to or behind the commercial and office uses. The study area has multiple activity centers including Metrocenter, a large regional shopping center built in 1973, Castles N' Coasters amusement park and Rose Mofford Sports Complex, among others.

Much of the development in the study area existed prior to construction of the Valley Metro starter line beginning in 2005. In 2006, Acclaim Apartment Homes opened on the northwest corner of 25th and Dunlap Avenues, providing approximately 200 units of multifamily housing. Between 2007 and 2009, the Townley Business Park and a City of Phoenix Fire Station were built on a vacant property on Townley Avenue, west of 23rd Avenue. From 2010 to 2013, the northeastern portion of Metrocenter, near 27th Drive and Peoria Avenue, experienced a large-scale redevelopment that removed multiple structures and developed new commercial business. This includes four restaurants (Raising Canes, Olive Garden, Buffalo Wild Wings and Hooters) and a new gas station (QuikTrip). In 2015, construction began on the southern portion of Metrocenter with the removal of one of the mall's old anchor store buildings. It is being replaced with a new Wal-Mart Supercenter with a planned opening in early 2017.

In 2016, the Phoenix City Council approved a Planned Unit Development for most of the Metrocenter site. A development group has proposed a major redevelopment for the mall, including infill development on existing parking lots. The development would

include mid-rise office, commercial and medical development, as well as high-density residential and senior housing. The developer also owns and plans to develop Metrocenter Market Place, a retail center located on the northeastern corner of 29th and Dunlap Avenues. Both of these planned developments reference the Northwest Phase II Light Rail Extension and incorporate design features that support light rail and pedestrian-friendly development.

## **1.2 ECONOMIC DEVELOPMENT ALONG THE EXISTING LIGHT RAIL SYSTEM**

The existing 26-mile light rail 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 260 projects worth approximately \$8.9 billion in economic development have occurred; \$6.6 billion of that amount represented private capital investment, with \$2.3 billion derived from public capital development. The new developments include over 17,500 residential units (1,700 of which are affordable) and over 3,200 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 of 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 beyond what is currently occurring. The 2016 existing economic conditions would continue and future economic development would progress in a manner similar to current activity.

### **2.2 BUILD ALTERNATIVE**

The Build Alternative is anticipated to have positive economic effects for the study area, the City of Phoenix and the region as a whole by providing connectivity to employment centers and the rapid urban development currently occurring in the city. The Build Alternative would foster future growth in the corridor that conforms to the City's vision for a sustainable, transit-oriented development pattern. The Build Alternative is also anticipated to generate both short- and long-term economic incentives in the study area, including direct and indirect benefits from the creation of jobs and purchases of materials and equipment for construction. These benefits would mostly occur on a regional basis, because not all employees or materials necessary for construction and

operation of the light rail would come from the city of Phoenix. Additionally, some short-term benefits in the study area would come from construction workers patronizing local businesses such as restaurants, gas stations, etc. These factors are discussed in more detail below.

### **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 support new, transit-supportive development within the study area. As of April 2016, approximately \$8.9 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 \$689 million worth of planned projects. Approximately \$4.9 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 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 Build Alternative 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 MAG *RTP* 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 Build Alternative 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 metropolitan 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 24 acres of vacant land are within  $\frac{1}{2}$  mile of the proposed light rail alignment, plus additional acreage of surface parking lots prime for future redevelopment. A significant amount of land within  $\frac{1}{2}$  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. Construction of the Build Alternative 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.

Because the Build Alternative is primarily within existing right-of-way, it would mostly require partial acquisition of properties along the alignment. Three full parcel acquisitions would be required to implement the Build Alternative. 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 three businesses. Because vacant parcels, underutilized land and commercially zoned properties exist in the study area, all efforts would be made to relocate these businesses within the corridor. If they are successfully relocated within the corridor, no impact on sales tax revenue within the corridor would occur. 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 by 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 light rail alignment, contributing to growth in its sales tax base.

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 Build Alternative'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 manufacture 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 benefit 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. 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 1).
- In the long run (during year 20), these benefits could increase to \$31 million and \$18 million for business output and personal income, respectively.
- 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 people who do not ride the light rail, 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 offered by the Build Alternative—coupled with potential investment in pedestrian-oriented development and implementation of transit-oriented development policies 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 2015 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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