

**Regional Connector Transit Corridor  
Draft Environmental Impact Statement/  
Draft Environmental Impact Report**

**APPENDIX DD**



**GROWTH – INDUCING IMPACTS**



**Regional Connector Transit Corridor  
Growth-Inducing Impacts  
Technical Memorandum**

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**Los Angeles County Metropolitan Transportation Authority**

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## ACRONYMS

CEQ	Council on Environmental Quality
CEQA	California Environmental Quality Act
CLACG	City of Los Angeles Council of Governments
FAR	Floor Area Ratio
FTA	Federal Transit Administration
LAPD	Los Angeles Police Department
LRT	Light Rail Transit
LRTP	Long Range Transportation Plan
NEPA	National Environmental Policy Act
RCP	Regional Comprehensive Plan
RTP	Regional Transportation Plan
SCAG	Southern California Association of Governments
TSM	Transportation Management System



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## 1.0 SUMMARY

None of the proposed project alternatives include any housing elements that would directly increase population or employment, or that would substantially change land use and development patterns. The areas along the routes are fully urbanized, making it unlikely that increased regional connectivity would induce housing construction.

The proposed project would provide additional links within the regional transportation network, thereby increasing overall system efficiency, reducing the need to make multiple transfers from one destination to another and increasing ease of travel between the San Gabriel Valley and the Westside or Long Beach. At the corridor level, the Regional Connector Transit Corridor project, combined with supportive public policies, plans, and favorable real estate conditions, could attract transit-supportive development, including employment opportunities, higher-density residential development, and new services and amenities.

The pattern of land development could be affected by greater concentration and intensity of land use activities along the proposed route. This could result in potential secondary land use impacts, most notably close to station locations. The proposed project would not induce growth; the most likely outcome would be an acceleration and/or redistribution of planned growth.



## 2.0 INTRODUCTION

This technical memorandum addresses the potential population, housing, and employment growth that may occur directly or indirectly due to the project. Although the Regional Connector Transit Corridor project does not include housing units, population could nevertheless increase due to the potential for transit-oriented development. This potential growth is analyzed at local and regional levels.





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## 3.0 METHODOLOGY FOR IMPACT EVALUATION

### 3.1 Regulatory Framework

#### 3.1.1 NEPA Guidance

Guidelines established by the Council on Environmental Quality (CEQ) regarding implementation of the National Environmental Policy Act (NEPA) require evaluation of all potential environmental consequences of proposed federal activities and programs. This provision includes a requirement to examine the indirect consequences, or secondary impacts that may occur in areas beyond the immediate influence of a proposed action and at some time in the future (40 CFR 1508.8). Secondary impacts may include changes in land use, economic vitality, and population density, all of which are elements of growth. NEPA guidelines require the evaluation of reasonably anticipated growth relative to projections of growth from a federally designated Metropolitan Planning Organization (MPO).

#### 3.1.2 Regional Growth Management Plans

Regional growth management plans are developed by the Southern California Association of Governments (SCAG), including the 2008 SCAG Regional Comprehensive Plan (RCP). SCAG is the federally designated MPO for six counties in Southern California (Los Angeles, Orange, Riverside, San Bernardino, Ventura, and Imperial).

SCAG's mission is to develop long-range regional plans and strategies that provide for efficient movement of people, goods, and information; enhance economic growth and international trade; and improve the quality of life in the Southern California region. The RCP describes an action plan for the implementation of short-term strategies and strategic, long-term initiatives and guiding principles for sustaining a livable region. The RCP focuses on specific areas of planning or resource management, including land use and housing, open space and habitat, water, energy, air quality, solid waste, transportation, security and emergency preparedness, and the economy. The Land Use chapter of the RCP addresses issues related to growth and land use in the SCAG region and describes guiding principles for development that support the overall goals of the RCP.

The 2008 SCAG Regional Transportation Plan (RTP) examines current and future transportation plans; population, housing, and employment growth; and land use data for the SCAG region to develop projections through the year 2035. The growth projections in the 2008 SCAG RTP are used as guidelines for growth in each jurisdiction. The environmental analysis utilizes these projections to establish the magnitude of impacts related to growth.

In 2004, SCAG initiated a comprehensive growth visioning process called the Southern California Compass, now called the Compass Blueprint (2004). The Compass process seeks to accommodate growth while maintaining mobility, livability, prosperity, and sustainability

goals for residents in the SCAG region.

### 3.1.3 CEQA Guidance

The California Environmental Quality Act (CEQA) also requires analysis of a project's potential to induce growth. CEQA Guidelines Section 15126.2(d) require that environmental documents "discuss the ways in which the Project could foster economic or population growth, or the construction of additional housing, either directly or indirectly, in the surrounding environment." Growth-inducing impacts also include removing obstacles to growth and may potentially include changes in the amount and distribution of growth.

According to the CEQA Guidelines, a project would have a significant impact if it would:

- Induce substantial population growth in an area either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure).

## 3.2 Standards of Significance

Generally, projects with growth-inducing impacts are located in isolated, undeveloped, or underdeveloped areas, necessitating the extension of major infrastructure (e.g., sewer and water facilities, roadways, etc.) or are those that could encourage "premature" or unplanned growth (i.e., "leap-frog" development). Growth-inducing impacts would be considered significant if the proposed project has the potential to induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, extending roads or other infrastructure).

## 3.3 Project Area

The project would be located in the central downtown area of the City of Los Angeles. The project build alternative alignments would traverse an area that includes several communities within the City of Los Angeles, including the Financial District, Bunker Hill, Civic Center, Little Tokyo, and the Historic Core.

The project area is in the City of Los Angeles Council of Governments (CLACG), a subregion of SCAG, which, in addition to the City of Los Angeles, also includes the City of San Fernando and portions of the unincorporated areas of Los Angeles County. The analysis of direct and indirect regional growth focuses not only on downtown Los Angeles growth, but also on growth in the areas served by the transit lines that would utilize the Regional Connector in Los Angeles County (Long Beach, Pasadena, Culver City, and East Los Angeles).

The analysis of the potential for direct and indirect local growth focuses on the area adjacent to the proposed transit alignment and stations extending  $\frac{1}{4}$  mile to either side.

### 3.4 Evaluation Methodology

Federal Transit Administration (FTA) guidelines require that regional growth projections be created by the MPO. As mentioned previously, SCAG is the MPO for the project area. In order to evaluate potential growth-inducing impacts, the SCAG 2008 RTP Integrated Growth Forecast will be used as the basis for analysis of impacts. This regional perspective can be helpful in understanding the overall projected increases in population when determining whether a proposed project would induce growth. Population, household, and employment data for the project area are presented in the next section.



## 4.0 AFFECTED ENVIRONMENT

### 4.1 Regional Population, Housing, and Employment Growth

As shown in Table 4-1, the existing population for the region is more than 18 million persons. The region is estimated to have a population of more than 24 million persons, with 10.2 million persons employed by 2035—an increase of approximately 26 percent.

The population and employment in Los Angeles County are projected to increase by 1.8 million people and 542,574 jobs between 2008 and 2035. This represents an estimated average annual increase of approximately 69,953 persons and 20,095 jobs. The fastest growing area is Imperial County, which is estimated to grow at a rate of approximately 2.7 percent annually; the slowest is Orange County, with a growth rate of less than 1 percent (0.5) annually. Imperial County is also projected to have the fastest growth in employment, with an estimated annual increase of 3.7 percent. Los Angeles County is estimated to experience the slowest rate of job growth with an annual rate of 0.4 percent.

**Table 4-1. Regional Population, Households, and Employment from 2008-2035**

<b>County</b>	<b>2008 Population</b>	<b>2035 Population</b>	<b>2008 Households</b>	<b>2035 Households</b>	<b>2008 Employment</b>	<b>2035 Employment</b>
Imperial	186,041	320,448	51,987	102,878	66,703	132,551
Los Angeles	10,449,883	12,338,620	3,298,886	4,003,501	4,498,598	5,041,172
Orange	3,210,499	3,653,990	1,015,502	1,118,490	1,698,090	1,981,901
Riverside	2,112,571	3,596,680	675,135	1,183,097	728,067	1,413,522
San Bernardino	2,095,180	3,133,801	612,123	972,561	766,044	1,254,749
Ventura	841,675	1,013,733	268,967	330,189	361,942	463,227
<b>SCAG Region</b>	<b>18,054,174</b>	<b>24,057,292</b>	<b>5,922,600</b>	<b>7,710,716</b>	<b>8,118,444</b>	<b>10,287,122</b>

*Source: Southern California Association of Governments 2008 Final Adopted Integrated Growth Forecast, May 2008.*

Along with increases in population and job growth, the region is estimated to add approximately 1.7 million households, for a total of 7.7 million. Imperial and Riverside Counties are estimated to grow most rapidly at an annual rate of 3.6 percent and 2.8 percent, respectively. Los Angeles County is estimated to increase households at a rate of 0.8 percent annually and Orange County is estimated to have the lowest annual growth rate at 0.4 percent.

## 4.2 Local Population, Housing, and Employment Growth

This section provides population, housing, and employment growth estimates for the collection of census tracts that comprise the project area. For comparison purposes, this section also includes data from the City of Los Angeles and the City of Los Angeles Council of Governments (CLACG). CLACG includes the City of Los Angeles, the City of San Fernando, and portions of unincorporated Los Angeles County.

Table 4-2 shows population growth projections at the local level. The project area's population is estimated to increase by approximately 3,200 persons by 2035, with an annual average increase of less than 1 percent (0.51). This would be a greater growth rate than either the CLACG subregion or the City of Los Angeles.

<b>Area</b>	<b>2008</b>	<b>2035</b>	<b>2008-2035 Population Change</b>	<b>2008-2035 Annual Average % Change</b>
CLACG	4,099,008	4,509,435	410,427	0.37
City of Los Angeles	4,016,324	4,415,773	399,449	0.37
Project Area /a/	19,912	23,123	3,211	0.51

*Source: Southern California Association of Governments 2008 Final Adopted Integrated Growth Forecast, May 2008.*

*/a/ The project area is comprised of the following census tracts: 2060.30, 2060.40, 2062, 2073, 2074, 2075, 2077.10.*

Table 4-3 shows the expected household growth for the project area, City of Los Angeles, and CLACG subregion. The City of Los Angeles is estimated to increase by 274,285 households and would comprise approximately 21 percent of the region's total households. The project area is estimated to increase by 2,552 households, which would be a minimal share of the City of Los Angeles' total, and would occur at a similar rate (0.77 percent) compared to the City (0.76 percent) and the CLACG subregion (0.75 percent).

**Table 4-3. Local Area Household Growth 2008-2035**

Area	2008	2035	2008-2035 Household Change	2008-2035 Annual Average % Change
CLACG	1,361,906	1,638,822	276,916	0.75
City of Los Angeles	1,342,291	1,616,576	274,285	0.76
Project Area	9,654	12,306	2,552	0.77

*Source: Southern California Association of Governments 2008 Final Adopted Integrated Growth Forecast, May 2008.*

Table 4-4 includes employment growth for the project area, City of Los Angeles, and CLACG subregion. The table shows that the project area is expected to gain approximately 12,630 new jobs by 2035. This would be an annual rate of change of approximately 0.26 percent. The annual rate of growth for the project area would be similar to that of the City of Los Angeles, but lower than the CLACG subregion rate.

**Table 4-4. Local Area Employment Growth 2008-2035**

Area	2008	2035	2000-2008 Employment Change	2008-2035 Annual Average % Change
CLACG	1,839,988	2,037,473	197,485	0.40
City of Los Angeles	1,879,666	1,994,137	114,471	0.23
Project Area	169,328	181,962	12,634	0.26

*Source: Southern California Association of Governments 2008 Final Adopted Integrated Growth Forecast, May 2008.*

The Cumulative Impacts Technical Memorandum identifies developments and other transit projects in downtown Los Angeles anticipated to be completed by 2018. These include major renovation projects, new construction of both public and private buildings, transportation infrastructure projects, and utility projects. The estimates developed by the City of Los Angeles and the CLACG would reflect these anticipated projects.





## 5.0 IMPACTS

Growth inducing effects would be considered significant if a proposed project has the potential to induce substantial population growth in an area either directly or indirectly.

### 5.1 No Build Alternative

The No Build Alternative would include all existing highway and transit services and facilities, the committed highway and transit projects in Metro's 2009 Long Range Transportation Plan (LRTP), and the committed highway and transit projects in SCAG's 2008 RTP. By the projection year of 2035, the Metro Expo Line to Santa Monica, Metro Purple Line to Westwood, Metro Crenshaw Line, Metro Green Line to the South Bay and LAX, and Metro Gold Line to Azusa and the San Gabriel Valley will have opened, and a number of bus services will have been reorganized and expanded to provide connections with these new rail lines. The transit network within the project area will otherwise be largely the same as it is now.

#### 5.1.1 Direct Impacts

Much of the project area is characterized by urban streets and dense land uses, including high-rise office buildings that dominate the downtown landscape. Under the No Build Alternative, past trends would likely continue and a substantial permanent change to the physical environment of the project area would not occur. However, because the downtown area is essentially the commercial center of the City of Los Angeles, it is projected that development would continue according to current trends. The No Build Alternative would not result in new homes or businesses, and therefore, would not directly induce growth.

#### 5.1.2 Indirect Impacts

The desirable location and current development trends in the project area indicate that development would occur without the proposed project and that the trend for conversion of office buildings into condominiums or rental apartments, particularly in the downtown area, would continue. As such, the No Build Alternative would not indirectly induce growth.

#### 5.1.3 Cumulative Impacts

Since the No Build Alternative would not directly or indirectly cause growth inducing impacts, there would be no cumulative impacts from this alternative.

### 5.2 Transportation Systems Management (TSM) Alternative

Under the TSM Alternative, only minor transit infrastructure investment would occur, including (but not limited to) two new express shuttle bus lines linking 7<sup>th</sup> Street/Metro Center Station and Union Station. These buses would run frequently, perhaps just a few minutes apart, especially during peak hours. The buses may also have traffic signal priority

similar to the Metro Rapid system, where the traffic signal control system grants longer green lights to oncoming transit vehicles.

Enhanced bus stops would be located every two to three blocks to maximize coverage of the area surrounding the routes. These new shuttles would also have associated structures (bus stops and signage). In addition, the same infrastructure investments that would occur under the No Build Alternative would occur under the TSM Alternative.

### **5.2.1 Direct Impacts**

Under the TSM Alternative, only minor transportation improvements would occur. The TSM Alternative would accommodate an existing transportation need, but would not add any new housing or significantly expand transportation infrastructure. Therefore, the TSM Alternative would not directly induce growth.

### **5.2.2 Indirect Impacts**

Minor bus improvements such as the TSM Alternative do not typically result in the types of transit-oriented growth that tends to occur near fixed-transit stations. As such, the TSM Alternative would not provide opportunities for secondary development. Although some growth would likely occur based on past development trends, it is unlikely that it would result from such minor transportation improvements. Therefore, the TSM Alternative would not indirectly induce growth.

### **5.2.3 Cumulative Impacts**

Since the TSM Alternative would not directly or indirectly cause growth inducing impacts, there would be no cumulative impacts from this alternative.

## **5.3 At-Grade Emphasis LRT Alternative**

The At-Grade Emphasis Light Rail Transit (LRT) Alternative extends from the underground 7<sup>th</sup> Street/Metro Center Station, heads north under Flower Street, resurfaces to at-grade north of 4<sup>th</sup> Street, crosses 3<sup>rd</sup> Street at-grade, enters Bunker Hill, and turns northeast through a new entrance to the existing 2<sup>nd</sup> Street tunnel. The double track alignment continues along 2<sup>nd</sup> Street to Main Street, where it splits into an at-grade couplet configuration traveling north on Main and Los Angeles Streets (one track on each roadway).

The alignment then heads east on Temple Street, realigns into a dual-track configuration just east of Los Angeles Street, and connects to the Metro Gold Line north of the Little Tokyo/Arts District Station on Alameda Street. Due to the high volume of trains that would traverse the Regional Connector, an automobile underpass and proposed pedestrian overpass would be constructed at the intersection of Temple and Alameda Streets to reduce potential pedestrian/train and automobile/train conflicts. To implement this alternative, the existing

number of traffic lanes and on-street parking on 2<sup>nd</sup>, Main, Los Angeles, and Temple Streets would be reduced.

This alternative includes three proposed stations located near Flower Street and 5<sup>th</sup> Street; under Bunker Hill; and one couplet station with a northbound platform at Los Angeles and 1<sup>st</sup> Streets, and a southbound platform at Main and 1<sup>st</sup> Streets.

### 5.3.1 Direct Impacts

An important objective of the proposed project is to meet existing transportation demand and accommodate potential increased demand due to regional growth. The proposed project would provide a linkage in the regional transportation network, thereby increasing overall system efficiency. The At-Grade Emphasis LRT Alternative does not include a housing element that would directly increase population or employment and it would not substantially change land use and development patterns at the regional scale. Therefore, this alternative would not directly induce population growth.

At the regional level, the proposed project would reduce the need to make several transfers from one destination to another, resulting in increased efficiency of travel between the San Gabriel Valley and the Westside or Long Beach. The areas along these routes are fully urbanized so it would be unlikely that the increased regional connectivity would induce housing construction.

### 5.3.2 Indirect Impacts

At the corridor level, the Regional Connector project, combined with supportive public policies, plans, and favorable real estate conditions, could attract transit-supportive development, including employment opportunities, higher-density residential development, and new services and amenities. The pattern of land development could be affected by a greater concentration and intensity of land use activities along the proposed route and particularly along the station areas, making secondary land use impacts most notable close to stations.

Experience gained from existing Metro projects such as the Purple and Red Lines suggests that developers in the Los Angeles area are interested in creating transit- and pedestrian-oriented mixed-use development, and that these types of developments can be very successful. The experience in other cities with similar transit infrastructure also supports this idea. However, policies supportive of the desired type of development must usually be in place.

Even with no change in public policy, some changes in land use may potentially occur as a result of the proposed project; however, these changes would largely represent a redistribution of growth rather than an increase. Downtown Los Angeles and Little Tokyo are currently densely developed. The transit corridor stations could attract transit-supportive land

uses to these areas. These uses could be developed in existing or new buildings on vacant lots close to the stations.

It is likely that the proposed project would enhance the attractiveness of the corridor for living or conducting business. The project could improve transit accessibility for people desiring to come to destinations within the project area and for area residents or others bound for other regional locations.

Employment opportunities may increase in the project area, and these opportunities would be enhanced by the light rail project. The proposed project would provide new job opportunities, particularly during construction, and new access to local employment opportunities for all communities within or connected to the project corridor. Short-term construction-related jobs created by the proposed project and long-term employment opportunities created by improved access would be a benefit to the entire community.

Under the At-Grade Emphasis LRT Alternative, the indirect impacts on neighborhoods would generally be positive. Station areas could become centers of neighborhood activity and investment and, therefore, could serve to boost neighborhood social cohesion and improve economic conditions for commercial buildings within the corridor and, in particular, those adjacent to the stations. The Regional Connector could also encourage additional growth of existing street level retail uses in both downtown and Little Tokyo. This new accessibility could also act as a catalyst for using underutilized space in commercial buildings.

The At-Grade Emphasis LRT Alternative would not result in direct business displacement and, therefore, would not undermine the economic base of these communities. Commercial properties near stations would have a reasonable potential to increase in value - a potential secondary effect.

A low potential exists for the project to cause secondary adverse impacts to historic properties. This could occur through redevelopment at or near station areas that are adjacent to historic properties. Such development may potentially introduce new buildings at a scale and appearance that would be out of character with the historic properties, or may result in the demolition of historic buildings to accommodate new development. On the other hand, underutilized historic buildings in the corridor may increase in desirability due to their proximity to the proposed project. This could be considered a beneficial secondary impact if development is undertaken with the goal of complementing the historic setting of these resources.

Potential indirect growth-inducing effects may result from the micro-scale growth or development near proposed stations. These potential effects, described in more detail in sections 5.3.2.1 through 5.3.2.3, would be due to implementation of local and state land use

policies or local planning objectives, which may encourage transit-oriented development, station area planning, or housing density bonuses adjacent to transit corridors.

The At-Grade Emphasis LRT Alternative's potential to indirectly induce growth is speculative at this time. The At-Grade Emphasis LRT Alternative would not remove any barriers to growth, nor would it otherwise directly or indirectly induce growth.

#### **5.3.2.1 Flower /6<sup>th</sup>/5<sup>th</sup> Streets Station**

The trend of converting office buildings into condominiums or rental apartments, particularly in the downtown area, would likely continue. The construction of new condominiums and rental apartments would also likely continue, especially on vacant land in the station areas. Under the At-Grade Emphasis LRT Alternative, convenient and faster transit access to central downtown provided by the project could accelerate these trends.

The area immediately surrounding the proposed Flower /6<sup>th</sup>/5<sup>th</sup> Street station is currently comprised of large office towers, the Los Angeles Central Library, and large hotels. It is also very dense, with little or no vacant land. While construction of the Regional Connector in downtown could have some effect on business locations because of the change in arrival and departure patterns of transit riders, it would be unlikely to significantly alter development plans within this proposed station area. Any changes in projected land use patterns would likely be a redistribution of expected growth, potentially resulting in a greater concentration of uses near the proposed transit station.

#### **5.3.2.2 2<sup>nd</sup>/Hope Streets Station**

The proposed 2<sup>nd</sup>/Hope Street station would also be located in central downtown. Existing land uses in the vicinity of this station area include the Colburn School of Performing Arts, parcels currently used as parking lots proposed for redevelopment as a part of the Grand Avenue Redevelopment Project, the Walt Disney Concert Hall, and residential developments. Land use in the Bunker Hill area is governed by the Central City Community Plan, which shows that the General Plan land use designation for the proposed station area permits commercial and multi-family residential land uses at an average Floor Area Ratio (FAR) of 6:1. In addition, the Central City Community Plan specifies that the FAR on an individual parcel may not exceed 13:1, consistent with previously established regulations for the underlying height district.

Further, the Downtown Specific Plan contemplates linking Bunker Hill with the existing transit network. While it is possible that new development would locate near the station area, it would be unlikely that the Regional Connector would induce growth into the Bunker Hill area beyond what is currently expected and planned.

### 5.3.2.3 Main/1<sup>st</sup> Street and Los Angeles/1<sup>st</sup> Street Stations

The proposed Main/1<sup>st</sup> Street and Los Angeles/1<sup>st</sup> Street stations would function as a couplet, with trains on Main Street traveling southbound only and trains on Los Angeles Street traveling northbound only. The proposed Main/1<sup>st</sup> Street station area is surrounded primarily by civic uses, including City Hall, City Hall East, Caltrans District 7 Headquarters, the new Los Angeles Police Department (LAPD) Administration Building, and the Kyoto Grand Hotel. Opportunities for redevelopment are limited from Main Street to the west because potential development would be constrained by existing buildings.

The area surrounding the proposed Los Angeles/1<sup>st</sup> Street station would likely experience some secondary effects due to the Regional Connector. Although the area is dominated by civic uses, several vacant parcels or surface parking lots are located within ¼ mile of the station area. In addition, Alameda and San Pedro Streets located to the east of the project site include industrial areas that in some cases have already begun converting to residential and commercial uses. Under the At-Grade Emphasis LRT Alternative, this trend would likely continue and could be accelerated.

The proposed Main/1<sup>st</sup> and Los Angeles/1<sup>st</sup> Street stations are located near Little Tokyo. Faster and more convenient access to central downtown provided by the At-Grade Emphasis LRT Alternative could accelerate existing residential development trends. Commercial development could also increase as a result of the proposed stations. Services intended for residents of Little Tokyo and downtown workers could also locate near the stations; this would allow service providers to take advantage of the access the new stations would provide. In many cases the trend for adaptive reuse of obsolete industrial, warehouse, and other office structures as residences could help to preserve currently vacant structures in the station areas that might otherwise deteriorate.

### 5.3.3 Cumulative Impacts

Since the At-Grade Emphasis LRT Alternative would not directly or indirectly cause growth inducing impacts, there would be no cumulative impacts from this alternative.

## 5.4 Underground Emphasis LRT Alternative

The Underground Emphasis LRT Alternative extends from the 7<sup>th</sup> Street/Metro Center Station north along Flower Street with a new underground station north of 5<sup>th</sup> Street. At 2<sup>nd</sup> Street, the underground tunnel would extend east with a new underground station near 2<sup>nd</sup> and Hope Streets to provide access to Bunker Hill.

A second underground station would be located either between Broadway and Spring Street or between Main and Los Angeles Streets. The tunnel would emerge to at-grade connections just southwest of the intersection of 1<sup>st</sup> and Alameda Streets. At 1<sup>st</sup> and Alameda Streets, a new underpass would carry car and truck traffic along Alameda Street below the rail junction,

and a proposed overhead pedestrian bridge structure would eliminate most potential conflicts between pedestrians and trains. This alternative would have a single at-grade crossing at the intersection of 1<sup>st</sup> and Alameda Streets.

### 5.4.1 Direct Impacts

The direct impacts associated with the Underground Emphasis LRT Alternative would be the same as those under the At-Grade Emphasis LRT Alternative. For this analysis, refer to Section 5.3.1 of this technical memorandum.

### 5.4.2 Indirect Impacts

The indirect impacts associated with the Underground Emphasis LRT Alternative would be similar to those under the At-Grade Emphasis LRT Alternative. The proposed station locations are slightly different for this alternative than those described for the At-Grade Emphasis LRT Alternative. The specific station locations proposed for the Underground Emphasis LRT Alternative are described in more detail in sections 5.4.2.1 through 5.4.2.3.

#### 5.4.2.1 Flower /5<sup>th</sup>/4<sup>th</sup> Street Station

The area immediately surrounding the proposed Flower /5<sup>th</sup>/4<sup>th</sup> Street station is very dense with little or no vacant land and currently comprised of large office towers, the Los Angeles Central Library, and large hotels. While the construction of the Underground Emphasis LRT Alternative in downtown could have some effect on business locations because of the change in arrival and departure patterns of transit riders, it would be unlikely to significantly alter development plans within this proposed station area.

#### 5.4.2.2 2<sup>nd</sup>/Hope Street Station

Impacts associated with the proposed 2<sup>nd</sup>/Hope Streets station would be similar to the At-Grade Emphasis LRT Alternative.

#### 5.4.2.3 2<sup>nd</sup> Street Station - Broadway Option

The proposed station located at Broadway and 2<sup>nd</sup> Street would be in an area currently characterized by a mix of office uses and some underutilized parcels. In general, conversion of vacant or underutilized parcels to commercial or residential uses has become more frequent in this area. Due to the close proximity to central downtown, this site would likely experience growth in either housing or commercial development. This development would likely be accelerated or redistributed as a result of the proposed project.

As part of this proposed station area, Metro is proposing to acquire a surface parking lot and part of the planned Federal Courthouse property on the northwest corner of Broadway and 2<sup>nd</sup> Street. It is likely that Metro would make the remainder of the parcel available for development at a later date and that the potential development would be consistent with the compact style of transit-oriented development. However, any development that would occur

on that parcel would be subject to additional environmental review. Nonetheless, the most likely secondary impact of this proposed station location would be the possible acceleration of already anticipated growth.

#### **5.4.2.4 2<sup>nd</sup> Street Station - Los Angeles Street Option**

The proposed 2<sup>nd</sup> Street station - Los Angeles Street Option would be located adjacent to the Kyoto Grand Hotel and the “Block 8” residential and retail development currently under construction. Located to the west of the proposed station area are civic uses, such as City Hall and City Hall East, and government buildings, including the proposed LAPD office and the Caltrans District 7 headquarters.

Several vacant parcels or surface parking lots are located within ¼ mile of the proposed station area. In addition, Alameda and San Pedro Streets (located to the east of the project site) include industrial areas that in some cases have already begun converting to residential and commercial uses. This area is already experiencing development of residential uses and it is expected these trends would continue.

Several surface parking lots in the area could be redeveloped as either housing or commercial uses to serve the downtown population and residents of Little Tokyo. It is likely that the proposed project would accelerate future growth and result in a redistribution of land use patterns, resulting in compact higher-density development in the proposed station area. In addition to this potential for redevelopment of vacant parcels, a portion of the surface parking lot located at the southeast corner of Los Angeles and 2<sup>nd</sup> Streets would be acquired by Metro as part of this proposed station. It would be likely that Metro would make the remainder of the parcel available for development at a later time. However, any development that would occur on that parcel would be subject to additional environmental review.

#### **5.4.2.5 Portal Area**

The portal area is the location at which the proposed alignment would exit the underground tunnel, continue at-grade, and connect to the existing Metro Gold Line. Proximity to the downtown area and recent improvements such as the Geffen Museum of Contemporary Art, the Savoy housing complex, and the Gold Line extension have increased development activity in the area of the proposed portal for the Underground Emphasis LRT Alternative.

Residences have been recently introduced in the area, greatly changing its overall character from an industrial to a residential neighborhood. Construction of new condominiums and rental apartments would likely continue, especially on vacant land in the station area.

For this alternative, Metro would propose to acquire a portion of the portal area for construction and possibly create a pedestrian overpass. The parcel is currently developed with commercial uses. After construction, the future availability of this parcel of land that Metro would have acquired and the existing and proposed development in the area indicate



that acceleration of currently anticipated growth may be a likely secondary impact at the portal area.

Possibilities for future use of this land range from plaza/open space with landscaping, to commercial development similar to what is there now, to more intense transit-oriented use - perhaps including parking. Any future use of this property would undergo the city development approval process, including environmental review, and Metro would ensure extensive input from the community to ensure that any proposed future use is compatible with and supportive of community goals.

In summary, our evaluation indicates secondary growth effects might occur in this area. However, this acceleration of currently anticipated growth would not be likely to result in substantial population growth in the area as a result of the project and therefore, this potential impact would be less than significant.

### **5.4.3 Cumulative Impacts**

The Underground Emphasis LRT Alternative would not directly cause growth inducing impacts, and might indirectly result in some effects only at the eastern portal area. This localized indirect effect would be less than significant and in combination with other potential future developments would not result in a cumulatively considerable effect.

## **5.5 Fully Underground LRT Alternative – Little Tokyo Variation 1**

The Fully Underground LRT Alternative – Little Tokyo Variation 1 alignment extends from the 7<sup>th</sup> Street/Metro Center Station north below Flower Street with a new underground station north of 5<sup>th</sup> Street. At 3<sup>rd</sup> Street, the alignment would extend east and a new underground station would be constructed near 2<sup>nd</sup> and Hope Streets to provide access to Bunker Hill.

From Bunker Hill, the alignment would continue east beneath 2<sup>nd</sup> Street. A third underground station would be located between Broadway and Spring Street. The alignment would continue under the Little Tokyo District and a fourth underground station would be constructed at the block bounded by Central Avenue and 1<sup>st</sup>, 2<sup>nd</sup>, and Alameda Streets. The alignment would emerge to at-grade connections with the existing Gold Line tracks via two portals: north of Temple Street and adjacent to and east of Alameda Street for the north-south line and within 1<sup>st</sup> Street east of Alameda Street for the east-west line.

### **5.5.1 Direct Impacts**

Potential direct impacts associated with the Fully Underground LRT Alternative – Little Tokyo Variation 1 would be the same as those under Underground Emphasis LRT Alternative. For that analysis, refer to Section 5.4.1 of this technical memorandum.

## 5.5.2 Indirect Impacts

Potential indirect impacts associated with the Fully Underground LRT Alternative – Little Tokyo Variation 1 would be the same as those under the Underground Emphasis LRT Alternative for the following station areas:

- Flower Street/5<sup>th</sup>/4<sup>th</sup> Street station
- 2<sup>nd</sup>/Hope Street station
- 2<sup>nd</sup> Street/Broadway station

For the impact analyses of these station areas, refer to Sections 5.4.2.1, 5.4.2.2, and 5.4.2.3 of this technical memorandum.

### 5.5.2.1 2<sup>nd</sup> Street/Central Avenue Station

The area surrounding the proposed 2<sup>nd</sup> Street/Central Avenue station is located within the block to the south and west of the existing Metro Gold Line Little Tokyo/Arts District Station, which would not be in service under this alternative. It is likely that some development would occur near the proposed station as a result of the Fully Underground LRT Alternative – Little Tokyo Variation 1. However, due to the close proximity of the existing Metro Gold Line station, it is difficult to determine what portion of potential growth would have occurred anyway.

In addition, Alameda and San Pedro Streets to the east of the proposed station site include industrial areas that have already begun converting to residential and commercial uses. , This trend would likely continue and could only be accelerated if the Fully Underground Alternative – Little Tokyo Variation 1 is constructed.

In summary, our evaluation indicates secondary growth effects might occur in this area. However, this acceleration of currently anticipated growth would not be likely to result in substantial population growth in the area as a result of the project and therefore, this potential impact would be less than significant.

## 5.5.3 Cumulative Impacts

The Fully Underground LRT Alternative – Little Tokyo Variation 1 would not directly cause growth inducing impacts, and might indirectly result in some effects only near the block bounded by 1<sup>st</sup>, 2<sup>nd</sup>, and Alameda Streets and Central Avenue. This localized indirect effect would be less than significant and in combination with other potential future developments would not result in a cumulatively considerable effect.

## 5.6 Fully Underground LRT Alternative – Little Tokyo Variation 2

The Fully Underground LRT Alternative – Little Tokyo Variation 2 extends from the 7<sup>th</sup> Street/Metro Center Station north in a cut-and-cover tunnel below Flower Street. A new underground station would be located north of 5<sup>th</sup> Street. At 3<sup>rd</sup> Street, the underground tunnel would extend east and a new underground station would be constructed near 2<sup>nd</sup> and Hope Streets to provide access to Bunker Hill. This segment of tunnel would be constructed using either the cut-and-cover method or the sequential excavation method.

From Bunker Hill, a tunnel excavated by tunnel boring machine would continue east beneath 2<sup>nd</sup> Street. A third underground station would be located between Broadway and Spring Street. The tunnel would continue under the Little Tokyo District and a fourth underground stacked station would be constructed at the block bounded by Central Avenue and 1<sup>st</sup>, 2<sup>nd</sup>, and Alameda Streets. The alignment would emerge to at-grade connections with the existing Gold Line tracks via three portals: north of Temple Street and adjacent to and east of Alameda Street for the north-south line and staggered portals within 1<sup>st</sup> Street east of Alameda Street for the east-west line.

### 5.6.1 Direct Impacts

The direct impacts associated with the Fully Underground LRT Alternative – Little Tokyo Variation 2 would be the same as those under the Fully Underground LRT Alternative – Little Tokyo Variation 1.

### 5.6.2 Indirect Impacts

The indirect impacts associated with the Fully Underground LRT Alternative – Little Tokyo Variation 2 would be the same as those under the Fully Underground LRT Alternative – Little Tokyo Variation 1 for all the station areas. For this analysis, refer to Section 5.5.2 of this technical memorandum.

### 5.6.3 Cumulative Impacts

The Fully Underground LRT Alternative – Little Tokyo Variation 2 would not directly cause growth inducing impacts, and might indirectly result in some effects only near the block bounded by 1<sup>st</sup>, 2<sup>nd</sup>, and Alameda Streets and Central Avenue. This localized indirect effect would be less than significant and in combination with other potential future developments would not result in a cumulatively considerable effect.



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## 6.0 POTENTIAL MITIGATION MEASURES

### 6.1 No Build Alternative

The No Build Alternative would not include new infrastructure, homes, or businesses; therefore, there would be no direct or indirect impact on growth-inducing factors and no mitigation measures would be required.

### 6.2 Transportation Systems Management (TSM) Alternative

The TSM Alternative would not include housing or permanent infrastructure improvements that could induce growth; therefore, there would be no direct or indirect impact on growth-inducing factors and no mitigation measures would be required.

### 6.3 At-Grade Emphasis LRT Alternative

#### 6.3.1 Direct Impacts

The At-Grade Emphasis LRT Alternative would not include any housing and, therefore, would not directly induce growth. No mitigation measures would be required.

#### 6.3.2 Indirect Impacts

The At-Grade Emphasis LRT Alternative would likely influence patterns of growth along the transit corridor, most notably in the proposed station areas. The most likely outcome would be an acceleration and/or redistribution of planned growth. The At-Grade Emphasis LRT Alternative would not indirectly induce growth. No mitigation measures would be required.

### 6.4 Underground Emphasis LRT Alternative

#### 6.4.1 Direct Impacts

The Underground Emphasis LRT Alternative would not include any housing and, therefore, would not directly induce growth. No mitigation measures would be required.

#### 6.4.2 Indirect Impacts

The Underground Emphasis LRT Alternative would likely complement patterns of growth along the transit corridor, most notably in the proposed station areas. The most likely outcome would be an acceleration and/or redistribution of planned growth. The Underground Emphasis LRT Alternative would not indirectly induce growth. No mitigation measures would be required.

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## 6.5 Fully Underground LRT Alternative – Little Tokyo Variation 1

### 6.5.1 Direct Impacts

The Fully Underground LRT Alternative – Little Tokyo Variation 1 would not include any housing and, therefore, would not directly induce growth. No mitigation measures would be required.

### 6.5.2 Indirect Impacts

The Fully Underground LRT Alternative – Little Tokyo Variation 1 would likely complement patterns of growth along the transit corridor, most notably in the proposed station areas. The most likely outcome would be an acceleration and/or redistribution of planned growth. The Fully Underground LRT Alternative – Little Tokyo Variation 1 would not indirectly induce growth. No mitigation measures would be required.

## 6.6 Fully Underground LRT Alternative – Little Tokyo Variation 2

### 6.6.1 Direct Impacts

The Fully Underground LRT Alternative – Little Tokyo Variation 2 would not include any housing and, therefore, would not directly induce growth. No mitigation measures would be required.

### 6.6.2 Indirect Impacts

The Fully Underground LRT Alternative – Little Tokyo Variation 2 would likely complement patterns of growth along the transit corridor, most notably in the proposed station areas. The most likely outcome would be an acceleration and/or redistribution of planned growth. The Fully Underground LRT Alternative – Little Tokyo Variation 2 would not indirectly induce growth. No mitigation measures would be required.

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## 7.0 CONCLUSIONS

### 7.1 No Build Alternative

#### 7.1.1 NEPA Findings

Under the No Build Alternative, no more transit infrastructure investment would occur beyond those planned for and funded in the 2009 LRTP. Although additional rail lines (Metro Expo Line to Santa Monica, Metro Purple Line to Westwood, Metro Crenshaw Line, Metro Green Line to the South Bay and LAX, and Metro Gold Line to Azusa and the San Gabriel Valley) will have opened and a number of bus services will have been reorganized and expanded to provide connections with these new rail lines, the transit network within the project area would otherwise be largely the same as it is now.

Accordingly, under the No Build Alternative there would be minimal construction in the project area associated with additional transit infrastructure investment. As such, no secondary impacts would occur. Therefore, no direct or indirect adverse impacts associated with secondary growth are expected under the No Build Alternative.

#### 7.1.2 CEQA Determination

Based on the CEQA thresholds of significance (Section 3.1.3), the No Build Alternative would not have a significant impact associated with growth inducement because it would not include construction of any housing or infrastructure. No mitigation measures are required.

### 7.2 Transportation Systems Management (TSM) Alternative

#### 7.2.1 NEPA Findings

Only minor transportation improvements would occur under the TSM Alternative. The TSM Alternative would accommodate an existing transportation need, but would not add any new housing or significantly expand transportation infrastructure. In addition, the TSM Alternative would not add the type of permanent infrastructure that facilitates changes in land use patterns and density of development. Therefore, no direct or indirect growth-inducing impacts would occur.

#### 7.2.2 CEQA Determination

The TSM Alternative would not include the addition of any new housing or expanded infrastructure. Therefore, no growth-inducing impacts would occur. No mitigation measures are required.

## 7.3 At-Grade Emphasis LRT Alternative

### 7.3.1 NEPA Findings

The At-Grade Emphasis LRT Alternative would be located within a densely developed urban setting and would not extend into undeveloped areas that may induce changes. Potential indirect growth-inducing effects may result from the micro-scale growth or development near proposed stations. These effects would be due to implementation of local and state land use policies or local planning objectives, which may encourage transit-oriented development, station area planning, or housing density bonuses adjacent to transit corridors.

Potential indirect growth would likely be similar under all build alternatives. However, the At-Grade Emphasis LRT Alternative's potential to indirectly induce growth is speculative at this time. The At-Grade Emphasis LRT Alternative would not remove any barriers to growth, nor would it otherwise directly or indirectly induce growth.

### 7.3.2 CEQA Determinations

Under CEQA, growth-inducing impacts would be considered significant if the proposed project has the potential to induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, by extending roads or other infrastructure). The proposed project intends to meet the existing and future transit needs of the project area, would be located within a densely developed urban setting, and would not extend into undeveloped areas that may induce changes.

Potential indirect growth-inducing effects could result from the micro-scale growth or development near proposed stations due to implementation of local and state land use policies or local planning objectives, which may encourage transit-oriented development, station area planning, or housing density bonuses adjacent to transit corridors. However, this potential indirect growth is speculative at this time. No direct or indirect growth-inducing impacts are expected.

## 7.4 Underground Emphasis LRT Alternative

### 7.4.1 NEPA Findings

Impacts related to growth-inducement would be similar to those under the At-Grade Emphasis LRT Alternative. No direct or indirect growth-inducing impacts are expected with the exception of the potential to accelerate currently anticipated growth at and near the parcel surrounding the eastern portal. This potential indirect effect would be less than significant.

### 7.4.2 CEQA Determinations

Impacts related to growth-inducement would be similar to those under the At-Grade Emphasis LRT Alternative. No direct or indirect growth-inducing impacts are expected with



the exception of the potential to accelerate currently anticipated growth at and near the parcel surrounding the eastern portal. This potential indirect effect would be less than significant.

## **7.5 Fully Underground LRT Alternative – Little Tokyo Variation 1**

### **7.5.1 NEPA Findings**

Impacts related to growth-inducement would be similar to those under the Underground Emphasis LRT Alternative. No direct or indirect growth-inducing impacts are expected with the exception of potentially accelerating currently anticipated growth near the eastern end of the alignment. This potential indirect effect would be less than significant.

### **7.5.2 CEQA Determinations**

Impacts related to growth-inducement would be similar to those under the Underground Emphasis LRT Alternative. No direct or indirect growth-inducing impacts are expected with the exception of potentially accelerating currently anticipated growth near the eastern end of the alignment. This potential indirect effect would be less than significant.

## **7.6 Fully Underground LRT Alternative – Little Tokyo Variation 2**

### **7.6.1 NEPA Findings**

Impacts related to growth-inducement would be similar to those under the Fully Underground LRT Alternative – Little Tokyo Variation 1. No direct or indirect growth-inducing impacts are expected with the exception of potentially accelerating currently anticipated growth near the eastern end of the alignment. This potential indirect effect would be less than significant.

### **7.6.2 CEQA Determinations**

Impacts related to growth-inducement would be similar to those under the Fully Underground LRT Alternative – Little Tokyo Variation 1. No direct or indirect growth-inducing impacts are expected with the exception of potentially accelerating currently anticipated growth near the eastern end of the alignment. This potential indirect effect would be less than significant.



## 8.0 REFERENCES CITED

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