Figure 4-1. Metro Service Map for Downtown Los Angeles

Table 4-1. Existing and Future Metro Rail Lines in the Project Area

Line	Mode	Route	Length	Weekday Ridership	Year Completed
Existing Metro Rail Lines					
Red/Purple	HRT	Union Station to North Hollywood, Wilshire/Western	17.4 Miles	139,409	1993-2000
Blue	LRT	7th Street/Metro Center to Long Beach	22 Miles	70,583	1990-1991
Gold	LRT	Sierra Madre Villa to East Los Angeles	19.7 Miles	28,227	2003, 2009 (Eastside Extension)
Future Metro Rail Lines (under construction)					
Expo	LRT	7th Street/Metro Center to Culver City	8.6	27,000	2011

[1] Source of anticipated weekday ridership: BuildExpo.org for projection year 2020

Metro Red Line – This heavy rail transit (HRT) subway line originates from Union Station and travels west (Figure 4-2). The line began operating with service between Union Station and Westlake/MacArthur Park station (5 stations) in 1993. An extension to Wilshire/Western station, which was later renamed the "Metro Purple Line," was completed in 1996. The extension of the Metro Red Line northwest from Wilshire/Vermont station to Hollywood/Vine station with an additional 5 stations opened in 1999. Three more stations were added with the opening of the extension to North Hollywood in 2000.

Figure 4-2. Metro Red Line

Metro Purple Line – This HRT line originated when the Union Station-Wilshire/Western route of the Metro Red Line was renamed the Metro Purple Line in 2006. Service began on this

route in two phases, in 1993 and 1996. As of the 2009 fiscal year, the Red and Purple Lines experienced approximately 139,409 weekday boardings on 17.4 miles of track.

Metro Blue Line – This line opened in 1990 and was the first light rail transit (LRT) system in Los Angeles since the previous rail transit system closed in the 1960s. The 22-mile line has 22 stations and runs from 7th Street/ Metro Center Station south to Long Beach. The Blue Line averaged 70,583 weekday boardings in the 2009 fiscal year.

Metro Gold Line – This LRT line from East Los Angeles to Pasadena has 21 stations, approximately 20 miles of track, and began operating in 2003 from Union Station to Pasadena. In the 2009 fiscal year, the line averaged 28,227 weekday boardings. The Metro Gold Line to East Los Angeles opened in late 2009, making stops in Little Tokyo, Boyle Heights, and East Los Angeles. The six-mile extension features eight new stations and connects with the existing Metro Gold Line to Pasadena without requiring riders to transfer at Union Station. Metro estimates that there will be 23,000 riders each weekday on the Metro Gold Line to East Los Angeles by 2020.

Figure 4-3. Metro Gold Line

Metro Expo Line – The first phase of the Exposition LRT line is expected to open in 2011. The 8.5-mile line will run primarily at grade and serve 11 stations from 7th Street/Metro Center Station in downtown to the intersection of Washington Blvd. and National Blvd. in Culver City. Average weekday ridership is expected to reach 43,600 by 2020 (Metro 2005). A second phase of the Expo Line to Santa Monica is currently in the planning phases.

There are four Metro Rail stations located within the project area. The HRT Metro Red and Purple Line stations are Civic Center Station (Hill Street between Temple and 1st Streets), Pershing Square Station (Hill Street between 4th and 5th Streets), and 7th Street/Metro Center Station (7th Street between Figueroa and Hope Streets, and Flower Street between Wilshire Blvd. and 8th Street). The 7th Street/Metro Center Station serves as a transfer point to the LRT Metro Blue Line as well. The LRT Little Tokyo/Arts District Station (Alameda Street between Temple and 1st Streets) is the newest station that opened in late 2009 as part of the Metro Gold Line to East Los Angeles.

4.2.2 Bus Service

Since downtown Los Angeles is a regional employment hub, there are numerous bus operators serving the area. These operators include:

- Antelope Valley Transit Authority (AVTA)
- City of Gardena (Gardena Municipal Bus Lines)
- City of Santa Clarita Transit
- City of Santa Monica (Big Blue Bus)
- Foothill Transit
- City of Los Angeles Department of Transportation (LADOT)
- Los Angeles County Metropolitan Transportation Authority (Metro)
- City of Montebello (Montebello Bus Lines)
- Orange County Transportation Authority (OCTA)
- City of Torrance (Torrance Transit)

Figure 4-4. Metro Bus

With the exception of Metro, LADOT, Montebello Bus Lines, City of Santa Monica, and Gardena Municipal Bus Lines, these transit operators run mostly peak commute (rush) hour, peak-direction commuter bus service in and out of the project area. LADOT provides both long-distance freeway commute service as well as frequent Downtown Area Short Hop (DASH) service along short, mostly circular shuttle routes within the downtown area. In addition to public transit services, several high-rise office building landlords within the project area offer shuttle bus service to Union Station for their tenants.

The majority of bus transit service in the project area, as well as the Los Angeles region, is provided by Metro, which operates a number of short and long-distance radial lines, as well as cross-town service, express service, and limited overnight service. The combined number of transit vehicle boardings and alightings in the project area on Metro buses alone totals 174,000 on a typical weekday. The 86,000 weekday boardings account for 15.2 percent of the 569,046 bus boardings system-wide.

Metro's bus transit services vary considerably in speed and capacity. The most basic routes provide line-haul service to and from downtown along arterial streets. Heavily-traveled routes often have overlaid limited-stop or Metro Rapid bus service.

Metro Rapid bus service includes traffic signal priority, short headways, and limited stops, which increase corridor average bus speeds by about 3-4 mph compared to local service, which typically operates in the 9-12 mph range. Metro currently provides Rapid service into the Regional Connector project area from major intersections along busy routes, including Beverly Blvd. (during peak hours only), Wilshire Blvd., Whittier Blvd., South Broadway, Hawthorne Blvd, Pico Blvd., and Central Avenue, Long Beach Blvd, Garvey Avenue, Cesar Chavez Avenue, and San Fernando Rd.

The majority of the publicly-provided commuter services originating east of downtown use the El Monte Busway. Constructed in 1976, these high capacity bus-carpool lanes parallel the San Bernardino Freeway (I-10) between the City of El Monte and downtown. Similarly, the commuter buses coming from points south and southeast of downtown primarily use the Harbor Transitway, completed in 1996, which runs along the median of SR-110 between Artesia Blvd. and Adams Blvd. Several transit operators use these facilities, and Metro also operates the Silver Line service, which runs on both facilities.

Busway stations are located in freeway medians which are uninviting to pedestrians and usually not immediately adjacent to activity centers. The busway stations are convenient to commuters who arrive on feeder bus lines or use adjacent park and ride lots. However, light rail stations are usually better situated to enhance neighborhood activity.

4.2.3 Commuter Rail

Commuter rail service to downtown is provided primarily by Metrolink and Amtrak, with connections to Metro Rail service at Union Station, located one-tenth-mile outside of the project area. Most passengers arriving at Union Station on Metrolink are bound for the central business district and presently use the Metro Red Line, DASH buses, or employer-provided shuttles to complete their trips. Some passengers may use the Regional Connector if it reduces trip times or transfers.

Metrolink has operated under the Southern California Regional Rail Authority (SCRRA) since 1992, serving the counties of Los Angeles, Orange, Riverside, San Bernardino, San Diego, and Ventura. Metrolink provides 512 miles of service (including tracks shared with Amtrak) to 55 stations on seven routes. Average weekday ridership on Metrolink trains from October through December 2009 was over 40,000 daily boardings, with the majority of trips (57.5 percent) beginning or ending at Union Station.

Amtrak is an inter-city rail system providing passengers at Union Station with regional, statewide, and nationwide service.

4.3 Performance of the Travel System

Southern California is faced with multiple mobility challenges that hinder the region's ability to effectively meet additional travel demand. One of the most pressing issues is population growth. The County alone is expected to increase by 2.3 million people, nearly twice the population of the City of San Diego, to a total of 12.3 million people by 2035. This expected population growth will lead to increased travel demand throughout the region.

The transportation network includes 9,000 lane-miles of freeway, more than 42,000 lane-miles of arterials, and several large public transit service providers (SCAG 2008). Yet growth of the transportation system has not kept pace with population growth and increases in transportation demand. As the population in the region doubled from 1960 to 2000, highway miles increased by less than 30 percent (SCAG 2008). The congestion caused by insufficient transportation lanes affects both personal travel and goods movement. The majority of the congestion is from travel on the highways and local arterial network regardless of transportation mode. If the current trend persists, travel delays are expected to rise to 5.7 million person hours by 2035, more than double currently experienced delays, which will deeply affect highway productivity (SCAG 2008).

If inadequately addressed, these challenges could hamper future population growth, economic development, commuter safety, existing infrastructure, goods movement, air quality, and other environmental conditions. If no action is taken to improve transportation mobility, SCAG estimates that daily person hours of delay would increase from 2.2 million hours under the 2000 Base Year to 5.7 million hours under the 2035 Baseline.

To define and address mobility issues, SCAG developed regional performance indicators that help in understanding the problem, setting goals for improvement, and measuring progress towards the goals. The following section describes regional performance indicators and baseline estimates of performance. By providing more attractive alternatives to the automobile, improving transit connections to and through the downtown Los Angeles area becomes one part of a larger, comprehensive strategy to meet regional travel demand.

4.3.1 Traffic Volumes and Operating Conditions

Performance of intersections is measured by "level of service" (LOS) (Table 4-2). All of the key intersections currently operate at LOS D or better during both the AM and PM peak hours. Only the Figueroa Street and Wilshire Boulevard intersection is operating at LOS F in the PM peak hour (Figure 4-5). By 2035, up to 28 intersections in the project area will be at LOS E or F in the PM peak hour without transit improvements in the project area (Figure 4-6).

Freeways within the project area already operate at LOS F during peak hours and, if not addressed, this trend is expected to worsen through the year 2035. Nearly all areas of the County experience freeway congestion during peak hours. However, the congestion on

freeways within the project area is among the worst and occurs during both the morning and evening rush hour periods, as illustrated in Figure 4-7.

In addition to congestion at intersections and on the freeways, many of the key roadway segments are also projected to operate at LOS D or worse in 2035 in the absence of transit improvements in the project area. In particular, most of the segments along Alameda and 3rd Street are projected to be at LOS F.

For a complete description of the traffic operating conditions analysis, see the Transportation Technical Memorandum (Appendix L).

Table 4-2. Level of Service Definitions

Level of Service	Volume/Capacity Ratio	Definition
A	0.000 - 0.600	FREE FLOW. No vehicle waits longer than one red light and no green light phase is fully used.
B	0.601 - 0.700	REASONABLY FREE FLOW. An occasional approach phase is fully utilized; many drivers begin to feel somewhat restricted within groups of vehicles.
C	0.701 - 0.800	STABLE FLOW. Occasionally drivers may have to wait through more than one red light; backups may develop behind turning vehicles.
D	0.801 - 0.900	APPROACHING UNSTABLE FLOW (acceptable for urban conditions). Delays may be substantial during portions of the rush hours, but enough lower volume periods occur to permit clearing of developing lines, preventing excessive backups.
E	0.901 - 1.000	UNSTABLE FLOW (practical capacity). Represents the most vehicles intersection approaches can accommodate; may be long lines of waiting vehicles through several signal cycles.
F	>1.000	FORCED OR BREAKDOWN FLOW. Backups from nearby locations or on cross streets may restrict or prevent movement of vehicles out of the intersection approaches. There are tremendous delays with continuously increasing queue lengths.

Source: Transportation Research Board, Highway Capacity Manual, 2000.

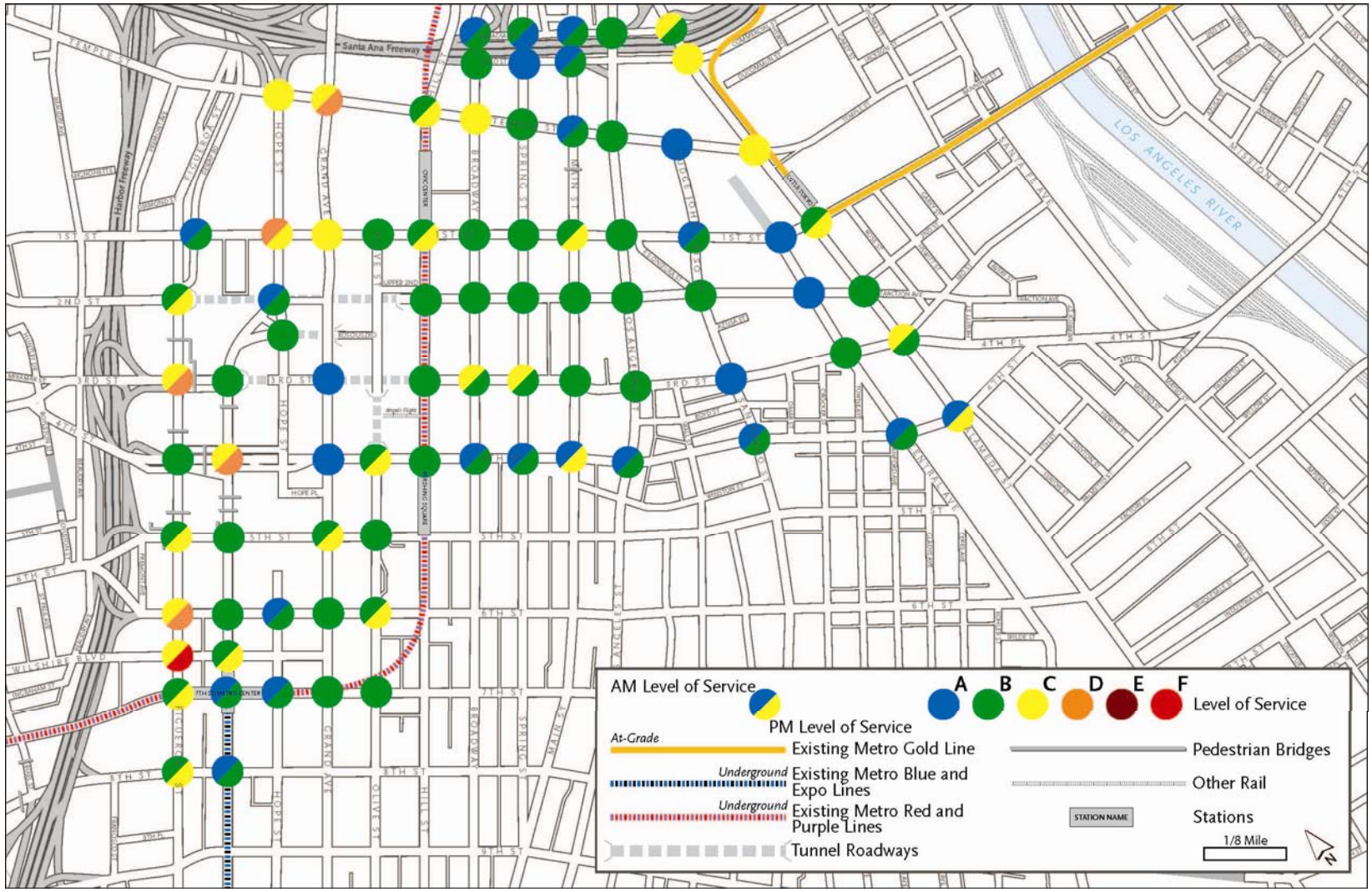

Figure 4-5. Existing Level of Service in Project Area

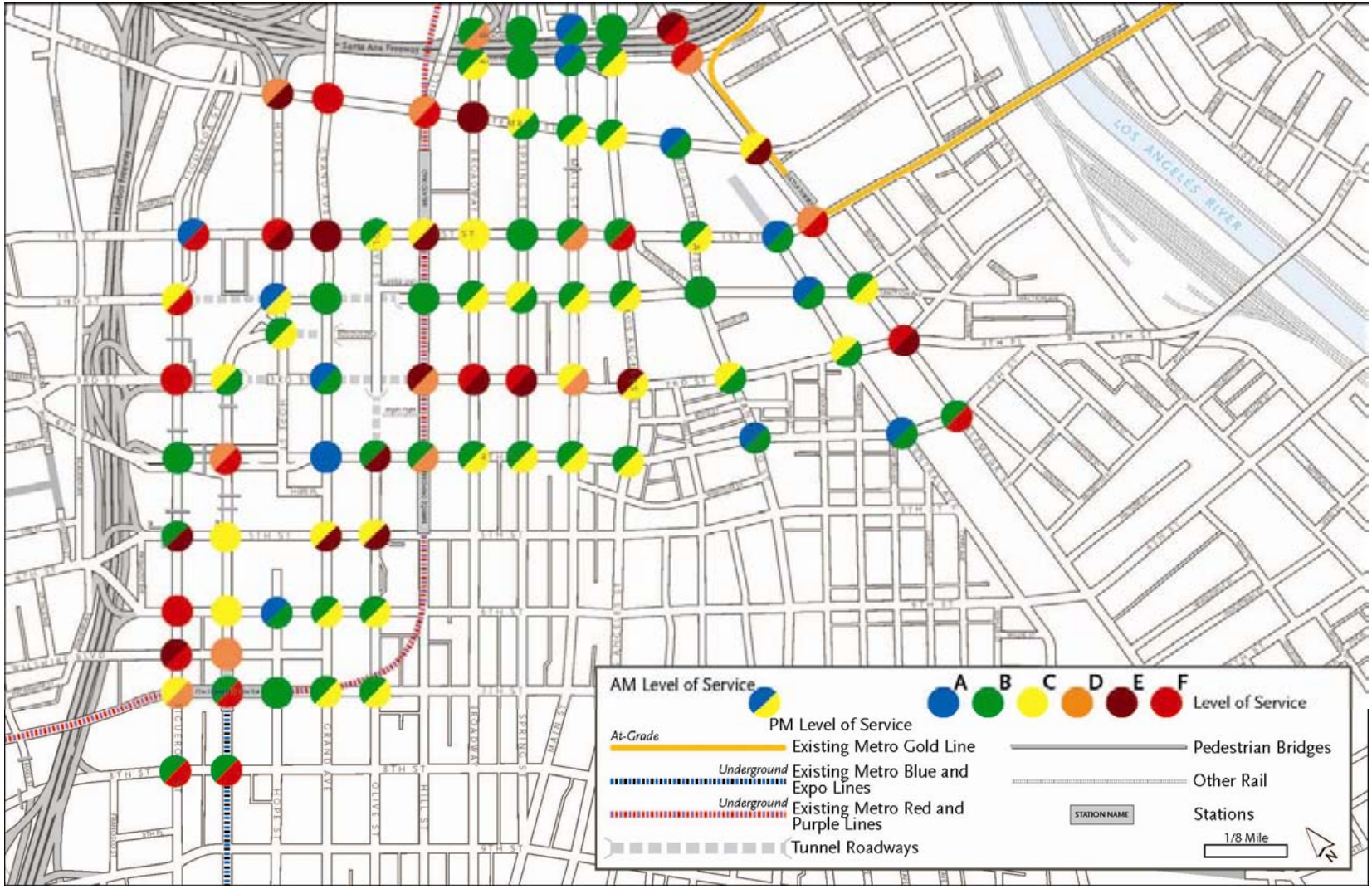

Figure 4-6. Predicted Level of Service in Project Area Without Transit Improvements (2035)

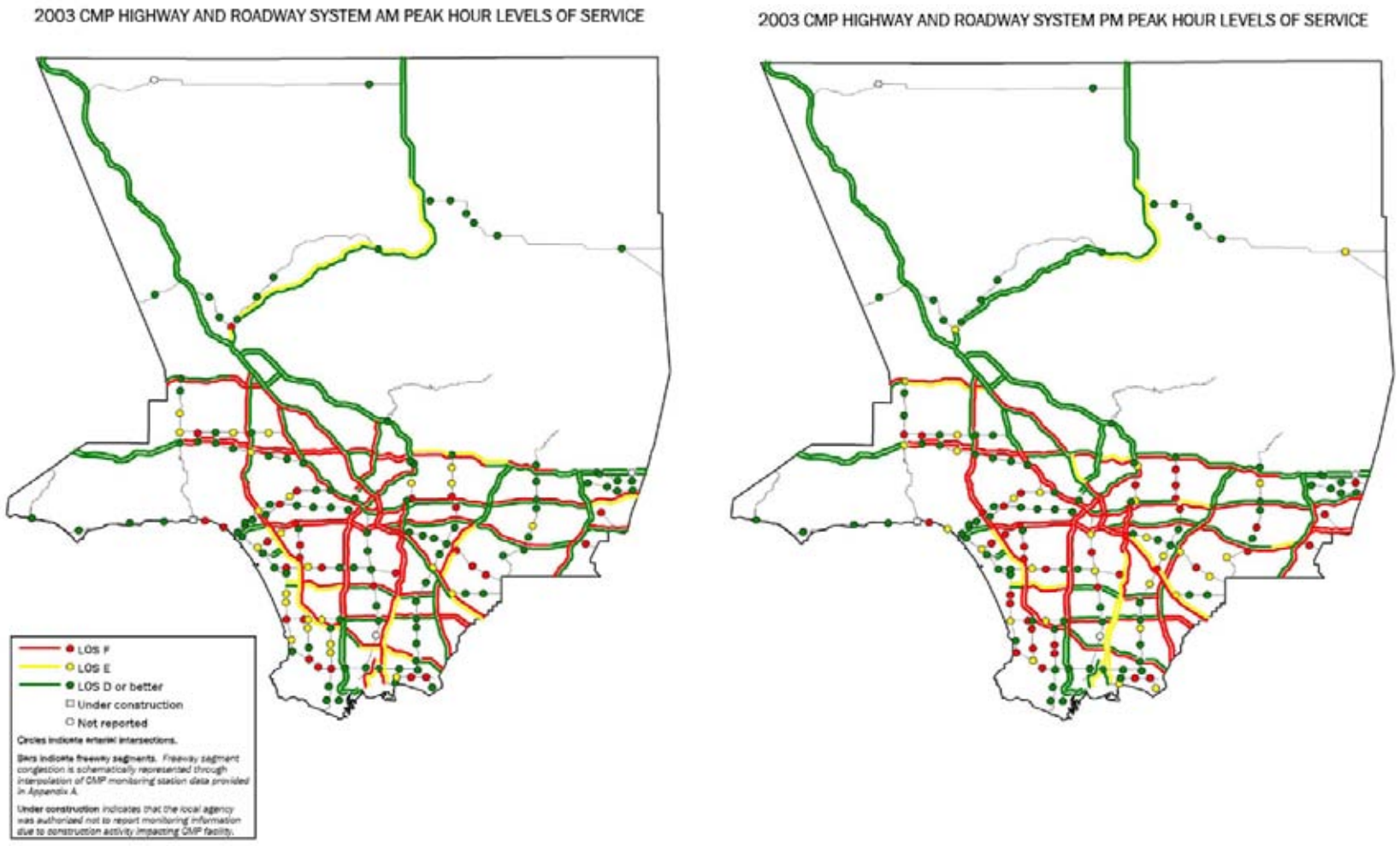

Figure 4-7. Freeway Levels of Service

4.3.2 Transit Operating Conditions

Bus service runs in a grid pattern through the downtown area, with most lines terminating at the periphery after having passed through. Nearly all streets within the project area have bus service during peak hours.

On several routes, headways shrink to less than five minutes during rush hour, and some stops are served by over a dozen lines. Some of the most heavily transit-served streets in the project area are 1st Street, the 4th Street/5th Street couplet, Hill Street, Broadway, the Main Street/Spring Street couplet, and the Grand Street/Olive Street couplet. Downtown streets with the highest bus ridership include Broadway, Hill Street, Spring Street, Main Street, Flower Street, and Grand Avenue.

Of the numerous bus routes serving downtown, over 30 pass within one block of both Union Station and the 7th Street/Metro Center Station, the termini of the Regional Connector corridor. There are 51 bus lines, mostly operated by Metro, with over 174,000 daily passenger boardings and alightings within the project area. Table 4-3 shows the bus lines provided by each bus operator, and the frequency of available service for each bus route.

The four busiest Metro bus lines serving the downtown area all originate in West Los Angeles or Santa Monica. The Metro bus lines with the highest number of boardings within the project area serve areas east and south of downtown. This supports the Westside, the Eastside, and South Los Angeles as primary origins and destinations for current bus passengers traveling in and out of the project area. See Table 4-4 for a summary of Metro bus transit ridership by line and direction.

Of the 38 Metro bus lines that pass within a block of both Regional Connector termini (Union Station and 7th Street/Metro Center Station) only a small percentage of the total ridership on these lines boards within the project area. This could indicate that riders are reluctant to transfer between modes (Table 4-5).

Most of the lines paralleling the Regional Connector route (serving both Union Station and the 7th Street/Metro Center Station) originate from points east of downtown, and five of them use the El Monte Busway. Most of the lines function primarily as peak hour commuter buses. Compared to other Metro bus lines in the project area, these routes do not carry as many riders which may be attributable to their lack of off-peak service.

Metro operates 125 bus stops within the project area. The five busiest Metro bus stops, each with 3,400 - 6,300 daily boardings, are located along Hill Street and Broadway between 5th and 7th Streets (Table 4-6). All of these stops are within one-quarter mile of the existing Pershing Square Station. If the Regional Connector includes stations near Broadway, Hill, and Spring Streets, it will enable transfers between the LRT system and the busiest north-south bus corridors in the area.

Most of the other busy Metro bus stops in the project area are located in the Financial Core and Civic Center areas, both of which will be served by the Regional Connector. Additionally, other transit operators have bus stops within the project area, although their ridership data were not available at this level of detail for this Draft EIS/EIR.

Table 4-3. Existing Bus Service in the Project Area					
Operator	Line	Mode	Weekday Hours of Operation	Peak Hour Frequency	Route Description
AVTA	785	Freeway Express Bus	4AM-6AM, 3PM-6PM	20 mins	Palmdale/Lancaster
BBB	10 Express	Freeway Express Bus	6AM-8PM	15 mins	Santa Monica
Gardena	1	Freeway Express Bus	5AM-12AM	15 mins	Gardena/Lawndale
Foothill	481	Freeway Express Bus	6AM-9AM, 3PM-6PM	20 mins	El Monte/Wilshire Center
Foothill	493	Freeway Express Bus	5AM-8AM, 2PM-8PM	10 mins	Phillips Ranch/Diamond Bar/Puente Hills Mall Transit Center
Foothill	497	Freeway Express Bus	5AM-8AM, 2PM-7PM	12 mins	Chino/Industry
Foothill	498	Freeway Express Bus	5AM-8AM, 2PM-7PM	7 mins	Covina/Azusa
Foothill	499	Freeway Express Bus	5AM-8AM, 2PM-7PM	12 mins	San Dimas
Foothill	699	Freeway Express Bus	4AM-8AM. 2PM-7PM	9-12 mins	Montclair

Table 4-3. Existing Bus Service in the Project Area

Operator	Line	Mode	Weekday Hours of Operation	Peak Hour Frequency	Route Description
Foothill	Silver Streak	Freeway Express Bus	24 Hours	10 mins	Montclair
LADOT	CE 409	Freeway Express Bus	6AM-9AM, 4PM-6PM	15 mins	Sylmar/Sunland/Tujunga/Montrose/Glendale
LADOT	CE 413	Freeway Express Bus	7AM-9AM, 4PM-6PM	25 mins	Van Nuys/North Hollywood/Burbank
LADOT	CE 419	Freeway Express Bus	7AM-9AM, 4PM-7PM	15 mins	Chatsworth/Northridge/Granada Hills/Mission Hills
LADOT	CE 422	Freeway Express Bus	5AM-9AM, 4PM-8PM	8 mins	Hollywood/San Fernando Valley/Agoura Hills/Thousand Oaks
LADOT	CE 423	Freeway Express Bus	7AM-9AM, 4PM-7PM	15 mins	Encino/Woodland Hills/Agoura Hills/Thousand Oaks/Newbury Park
LADOT	CE 430	Freeway Express Bus	6AM-7AM, 5PM-6PM	30-50 mins	Brentwood/Pacific Palisades
LADOT	CE 431	Freeway Express Bus	7AM-9AM, 5PM-6PM	30 mins	Westwood/Rancho Park/Palms
LADOT	CE 437	Freeway Express Bus	7AM-9AM, 4PM-6PM	15-30 mins	Venice/Marina del Rey/Culver City

Table 4-3. Existing Bus Service in the Project Area					
Operator	Line	Mode	Weekday Hours of Operation	Peak Hour Frequency	Route Description
LADOT	CE 438/444	Freeway Express Bus	7AM-9AM, 4PM-6PM	15 mins	Redondo Beach/Hermosa Beach/Manhattan Beach/El Segundo
LADOT	CE 448	Freeway Express Bus	7AM-9AM, 4PM-6PM	15 mins	Rancho Palos Verdes/Torrance/Lomita/Wilmington Harbor City
LADOT	CE 534	Freeway Express Bus	7AM-8AM, 4PM-5PM	30 mins	Century City/Westwood
LADOT	DASH A	Circulator Bus	7AM-7PM	7 mins	Little Tokyo/City West
LADOT	DASH B	Circulator Bus	6AM-7PM	8 mins	Chinatown/Financial District
LADOT	DASH C	Circulator Bus	7AM-7PM	7 mins	Financial District/South Park
LADOT	DASH D	Circulator Bus	6AM-7PM	5 mins	Union Station/South Park
LADOT	DASH E	Circulator Bus	7AM-7PM	5 mins	City West/Fashion District
LADOT	DASH F	Circulator Bus	7AM-7PM	10 mins	Financial District/Exposition
LADOT	DASH CH	Circulator Bus	6AM-6PM	6 mins	City Hall Shuttle
LADOT	DASH DD	Circulator Bus	Weekend Only	20 mins	Downtown Discovery

Table 4-3. Existing Bus Service in the Project Area					
Operator	Line	Mode	Weekday Hours of Operation	Peak Hour Frequency	Route Description
LADOT	DASH MBH	Circulator Bus	7AM-9AM, 3PM-6PM	10 mins	Metrolink/Bunker Hill
Metro	2/302	Local/Limited Stop Bus	24 Hours	4-10 mins	Pacific Palisades via Sunset Blvd.
Metro	4	Local Bus	24 Hours	9-15 mins	Santa Monica via Santa Monica Blvd.
Metro	10	Local Bus	5AM-12AM	7-15 mins	West Hollywood via Temple Street and Melrose Avenue
Metro	14	Local Bus	24 Hours	12-25 mins	Beverly Hills via Beverly Blvd.
Metro	16/316	Local/Limited Stop Bus	4AM-1AM	2-6 mins	Century City via 3rd Street
Metro	18	Local Bus	24 Hours	3 mins	Wilshire Center – Montebello via 6th Street and Whittier Blvd.
Metro	20	Local Bus	24 Hours	4 mins	Santa Monica via Wilshire Blvd.
Metro	26/51/52/352	Local/Limited Stop Bus	24 Hours	4 mins	Hollywood – Compton – Artesia Blue Line via Avalon Blvd.
Metro	28	Local Bus	5AM-1AM	8 mins	Century City via Olympic Blvd.

Table 4-3. Existing Bus Service in the Project Area					
Operator	Line	Mode	Weekday Hours of Operation	Peak Hour Frequency	Route Description
Metro	30/31	Local/Limited Stop Bus	24 Hours	30-50 mins	Pico-Rimpau – Monterey Park via Pico Blvd. and E 1st Street
Metro	33/333	Local/Limited Stop Bus	24 Hours	6-16 mins	Santa Monica via Venice Blvd.
Metro	35/335[1]	Local/Limited Stop Bus	4AM-1AM	5-12 mins	Fairfax/Washington via Washington Blvd.
Metro	37	Local Bus	24 Hours	6-12 mins	Fairfax/Washington via Adams Blvd.
Metro	38	Local Bus	24 Hours	10-15 mins	17th/Broadway – Fairfax and Washington via Jefferson Blvd.
Metro	40	Local Bus	24 Hours	6-15 mins	South Bay Galleria via Hawthorne Blvd., Crenshaw Blvd., and ML King Blvd.
Metro	42/42A	Local Bus	24 Hours	9-16 mins	LAX via MLK Blvd., Stocker Street, and La Tijera Blvd.
Metro	45	Local Bus	24 Hours	4-10 mins	Lincoln Heights – Rosewood via Broadway
Metro	48	Local Bus	5AM-11PM	7-18 mins	Avalon Green Line via Main Street and S. San Pedro Street

[1] Trips into Project Area operate after 7PM.

Table 4-3. Existing Bus Service in the Project Area

Operator	Line	Mode	Weekday Hours of Operation	Peak Hour Frequency	Route Description
Metro	53	Local/Limited Stop Bus	24 Hours	6-20 mins	CSU Dominguez Hills via Central Avenue
Metro	55/355	Local/Limited Stop Bus	24 Hours	4-12 mins	Imperial Blue/Green Line via Compton Avenue
Metro	60	Local Bus	24 Hours	3-7 mins	Artesia Blue Line via Long Beach Blvd.
Metro	62	Local Bus	5AM-11PM	15-27 mins	Hawaiian Gardens via Telegraph Rd.
Metro	66/366	Local/Limited Stop Bus	4AM-1AM	1-10 mins	Wilshire Center - Montebello via 8th Street and Olympic Blvd.
Metro	68/84	Local Bus	24 Hours	7-10 mins	Eagle Rock Blvd. – Cypress Avenue – Montery Park via Cesar Chavez Avenue
Metro	70	Local Bus	24 Hours	10-12 mins	El Monte via Marengo St & Garvey Avenue
Metro	71	Local Bus	4AM-1AM	12-30 mins	Cal State LA via Wabash Avenue & City Terrace Dr.
Metro	76	Local Bus	24 Hours	7-15 mins	El Monte – Downtown LA via Valley Blvd.
Metro	78/79/378	Local/Limited Stop Bus	5AM-1AM	5-15 mins	Arcadia via Huntington Dr. and Las Tunas Dr.

Table 4-3. Existing Bus Service in the Project Area					
Operator	Line	Mode	Weekday Hours of Operation	Peak Hour Frequency	Route Description
Metro	81	Local Bus	5AM-1AM	3-10 mins	Eagle Rock - Exposition Park via Figueroa Street
Metro	83	Local Bus	24 Hours	8-10 mins	Eagle Rock via York Avenue
Metro	90/91	Local Bus	5AM-12AM	16-30 mins	Sunland via Glendale Avenue, Foothill Blvd.
Metro	92	Local Bus	24 Hours	10-20 mins	Burbank Station via Glenoaks Blvd., Brand Blvd., Glendale Blvd.
Metro	94	Local Bus	5AM-1AM	10-14 mins	Sun Valley via Hill Street & San Fernando Rd.
Metro	96	Local Bus	5AM-8PM	20 mins	Sherman Oaks via Griffith Park Dr. and Riverside Dr.
Metro	439	Freeway Express Bus	5AM-9PM	30-45 mins	Aviation Green Line via Culver City
Metro	442	Freeway Express Bus	6AM-8AM, 4PM-6PM	25-30 mins	Hawthorne via Harbor Transitway, Manchester Blvd., and La Brea Avenue
Metro	445	Freeway Express Bus	5AM-7PM	30 mins	San Pedro via Harbor Transitway, 1st Street, and Pacific Avenue
Metro	450X	Freeway Express Bus	6AM-9AM, 4PM-6PM	12-20 mins	South Bay Express via Harbor Transitway

Table 4-3. Existing Bus Service in the Project Area					
Operator	Line	Mode	Weekday Hours of Operation	Peak Hour Frequency	Route Description
Metro	460	Freeway Express Bus	5AM-12AM	19-28 mins	Disneyland via Harbor Transitway, I-105, and I-5
Metro	484	Freeway Express Bus	5AM-12AM	5 mins	Pomona via El Monte Busway and Valley Blvd.
Metro	485	Freeway Express Bus	5AM-12AM	12-15 mins	Altadena via El Monte Busway, Oak Knoll Avenue, and Lake Avenue
Metro	487/489	Freeway Express Bus	6AM-9PM	16-30 mins	El Monte – Downtown LA | Temple City – Downtown LA
Metro	490	Freeway Express Bus	5AM-11PM	10 mins	Pomona via El Monte Busway and Ramona Blvd.
Metro	704	Rapid Bus	6AM-8PM	8-10 mins	Santa Monica Blvd. Rapid
Metro	714	Rapid Bus	6AM-9AM, 3PM-6PM	10-20 mins	Beverly Blvd. Rapid
Metro	720	Rapid Bus	4AM-1AM	3-12 mins	Wilshire Blvd. - Whittier Blvd. Rapid
Metro	728	Rapid Bus	5AM-8PM	8-15 mins	Olympic Blvd. Rapid
Metro	730	Rapid Bus	5AM-9PM	10 mins	Pico Rimpau via Pico Blvd.

Table 4-3. Existing Bus Service in the Project Area					
Operator	Line	Mode	Weekday Hours of Operation	Peak Hour Frequency	Route Description
Metro	740	Rapid Bus	5AM-8PM	10-15 mins	Hawthorne Blvd. Rapid
Metro	745	Rapid Bus	5AM-8PM	4-15 mins	South Broadway Rapid
Metro	753	Rapid Bus	5AM-10PM	10 mins	Imperial/Wilmington Station via Central Avenue
Metro	760	Rapid Bus	5AM-8PM	10-15 mins	Long Beach Blvd. Rapid
Metro	770	Rapid Bus	6AM-6PM	10 mins	Garvey Avenue - Cesar Chavez Avenue Rapid
Metro	794	Rapid Bus	5AM-10PM	10-14 mins	Sylmar Station via San Fernando Rd., Brand Blvd.
Metro	Blue Line	Light Rail	5AM-12AM	5 mins	Long Beach via South Los Angeles, Willowbrook, and Compton
Metro	Gold Line	Light Rail	5AM-12AM	7 mins	Pasadena and East Los Angeles
Metro	Red/Purple Line	Heavy Rail	5AM-12AM	5 mins	Wilshire Center and North Hollywood
Metro	Silver Line	Transitway	24 Hours	1 mins	Harbor Gateway and El Monte
Montebello	40	Local Bus	5AM-10PM	8 mins	Montebello and Whittier via Beverly Blvd.
Montebello	50	Local Bus	5AM-12AM	30 mins	Whittier and La Mirada via Washington Blvd.

Table 4-3. Existing Bus Service in the Project Area

Operator	Line	Mode	Weekday Hours of Operation	Peak Hour Frequency	Route Description
Montebello	341	Limited Stop Bus	7AM-9AM, 4PM-6PM	30 mins	Montebello and Whittier via Beverly Blvd.
Montebello	342	Limited Stop Bus	7AM, 5PM	One Trip	Montebello and Whittier via Beverly Blvd.
OCTA	701	Freeway Express Bus	5AM-6AM, 4PM-5PM	20 mins	Huntington Beach
OCTA	721	Freeway Express Bus	6AM-9AM, 3PM-6PM	30 mins	Fullerton
Santa Clarita	799	Freeway Express Bus	5AM-7AM, 3PM-7PM	20 mins	Valencia/Santa Clarita
Torrance	1	Freeway Express Bus	6AM-9AM, 4PM-10PM	30 mins	Torrance via Harbor Transitway and Artesia Transit Center
Torrance	2	Freeway Express Bus	7AM-7PM	60 mins	Torrance via Harbor Transitway

Source: Antelope Valley Transit Authority, City of Santa Monica, Foothill Transit, City of Los Angeles Department of Transportation, Los Angeles County Metropolitan Transportation Authority, Montebello Bus Lines, Orange County Transportation Authority, Santa Clarita Transit, Torrance Transit, 2007-2010

Table 4-4. Metro Bus Ridership, Fiscal Year 2010 (1st Quarter)				
Line	Direction	Average Daily Boardings within Project Area	Average Daily Alightings within Project Area	Line Ridership
2/302	East	287	1628	21875
	West	1617	603	
4/304	East	190	1392	20873
	West	1427	449	
10	East	815	1573	13510
	West	1494	842	
14/37	North	747	934	16911
	South	911	685	
16/316	East	171	3798	26731
	West	4406	667	
18	East	2930	4571	26970
	West	3672	2752	
20	East	178	1585	17757
	West	2105	359	
26/51/52/352	East	2175	2865	27640
	West	3254	2982	
28/328	East	55	933	9362
	West	561	42	
30/31	East	1876	1995	16668
	West	1942	1276	

Table 4-4. Metro Bus Ridership, Fiscal Year 2010 (1st Quarter)				
Line	Direction	Average Daily Boardings within Project Area	Average Daily Alightings within Project Area	Line Ridership
33/333	East	102	1088	23209
	West	1131	119	
35/335	East	7	34	9098
	West	56	13	
38	East	0	11	5982
	West	7	0	
40	North	539	1757	17718
	South	1716	440	
42/42A	North	353	850	4904
	South	767	218	
45/46	North	1705	2570	20974
	South	3002	1555	
53	North	477	1867	10588
	South	2004	506	
55/355	North	114	944	10442
	South	887	120	
60	North	1709	3596	17625
	South	3852	1813	
62	East	875	201	4327
	West	287	941	

Table 4-4. Metro Bus Ridership, Fiscal Year 2010 (1st Quarter)				
Line	Direction	Average Daily Boardings within Project Area	Average Daily Alightings within Project Area	Line Ridership
66/366	East	1750	2336	23320
	West	2324	1955	
68/84	North	454	415	9515
	South	216	481	
70	East	1587	200	13518
	West	132	1582	
76	East	1203	169	10744
	West	99	1004	
78/79/378	East	1500	163	11490
	West	10	129	
81	North	1659	1259	17116
	South	1208	1920	
83	North	1048	210	5744
	South	92	840	
90	North	1029	126	6156
	South	61	912	
92	North	670	78	5791
	South	57	812	
94	North	1165	155	6891
	South	80	979	

Table 4-4. Metro Bus Ridership, Fiscal Year 2010 (1st Quarter)				
Line	Direction	Average Daily Boardings within Project Area	Average Daily Alightings within Project Area	Line Ridership
439	North	18	130	954
	South	136	30	
442	North	1	61	220
	South	63	7	
444	North	23	366	2982
	South	277	67	
445	North	17	307	1339
	South	240	33	
446/447	North	20	260	4147
	South	298	69	
450X	Clockwise	257	276	804
460	East	547	31	4333
	West	12	577	
484	East	1090	57	7128
	West	45	1038	
485	North	295	25	2949
	South	31	460	
487/489	East	654	50	3965
	West	35	820	
490	East	757	37	5822

Table 4-4. Metro Bus Ridership, Fiscal Year 2010 (1st Quarter)				
Line	Direction	Average Daily Boardings within Project Area	Average Daily Alightings within Project Area	Line Ridership
	West	34	1027	
714	East	26	428	3924
	West	385	52	
720	East	1628	2708	38393
	West	3050	2104	
728	East	71	841	8638
	West	702	193	
730	East	91	779	5096
	West	771	117	
740	North	174	1305	9264
	South	1365	158	
745	North	253	2041	8048
	South	1880	259	
753	North	80	744	3116
	South	509	44	
760	North	528	1672	8675
	South	1592	506	
770	East	757	42	9494
	West	30	811	
794	North	895	57	6306

Table 4-4. Metro Bus Ridership, Fiscal Year 2010 (1st Quarter)				
Line	Direction	Average Daily Boardings within Project Area	Average Daily Alightings within Project Area	Line Ridership
	South	51	810	
	TOTAL	86435	87698	569046
Total Boardings and Alightings in Project Area			174133	

Source: Los Angeles County Metropolitan Transportation Authority, 2009
Note: no ridership data for Metro routes 96 & 489

Table 4-5. Metro Bus Ridership on Lines Passing Within One Block of Both Union Station and 7th Street/Metro Center Station, Fiscal Year 2010 (1st Quarter)			
Line	Average Daily Boardings within Project Area	Average Daily Boardings for Entire Line	Route Description
20	667	17757	Santa Monica via Wilshire Blvd.
26/51/52/352	1728	27640	Hollywood - Compton - Artesia Blue Line via Avalon Blvd.
33/333	532	23209	Santa Monica via Venice Blvd.
40	425	17718	Montebello and Whittier via Beverly Blvd.
42/42A	336	4904	LAX via MLK Blvd., Stocker Street, and La Tijera Blvd.
60	360	17625	Artesia Blue Line via Long Beach Blvd.
66/366	321	23320	Wilshire Center - Montebello via 8th Street and Olympic Blvd.
68/84	928	9515	West LA - Montebello via Washington Blvd. and

Table 4-5. Metro Bus Ridership on Lines Passing Within One Block of Both Union Station and 7th Street/Metro Center Station, Fiscal Year 2010 (1st Quarter)			
Line	**Average Daily Boardings within Project Area**	**Average Daily Boardings for Entire Line**	**Route Description**
			Cesar Chavez Avenue
70	420	13518	El Monte via Garvey Avenue
78/79/378	846	11490	Arcadia via Huntington Dr. and Las Tunas Dr.
81	130	17116	Eagle Rock - Exposition Park via Figueroa Street
439	127	954	Aviation Green Line via Culver City
442	25	220	Hawthorne via Harbor Transitway, Manchester Blvd., and La Brea Avenue
444	279	2982	Rancho Palos Verdes via Harbor Transitway and Hawthorne Blvd.
445	234	1339	San Pedro via Harbor Transitway, 1st Street, and Pacific Avenue
446	279	4147	San Pedro via Harbor Transitway, Avalon Blvd., and Pacific Avenue
450X	141	804	South Bay Express via Harbor Transitway
460	210	4333	Disneyland via Harbor Transitway, I-105, and I-5
484	283	7128	Pomona via El Monte Busway and Valley Blvd.
485	74	2949	Altadena via El Monte Busway, Oak Knoll Avenue, and Lake Avenue
487/489	237	3965	Sierra Madre Villa Gold Line via El Monte Busway
490	182	5822	Pomona via El Monte Busway and Ramona Blvd.

Table 4-5. Metro Bus Ridership on Lines Passing Within One Block of Both Union Station and 7th Street/Metro Center Station, Fiscal Year 2010 (1st Quarter)			
Line	**Average Daily Boardings within Project Area**	**Average Daily Boardings for Entire Line**	**Route Description**
704	282	12710	Santa Monica Blvd. Rapid
728	196	8638	Olympic Blvd. Rapid
740	360	9264	Hawthorne Blvd. Rapid
745	326	8048	South Broadway Rapid
760	689	8675	Long Beach Blvd. Rapid
770	667	9494	Garvey Avenue - Cesar Chavez Avenue Rapid
		Total	11284

Source: Los Angeles County Metropolitan Transportation Authority, 2009

Table 4-6. Average Daily Boardings and Alightings at Metro Bus Stops Within The Project Area, Fiscal Year 2010 (1st Quarter)			
East/West Street	**North/South Street**	**Average Daily Boardings**	**Average Daily Alightings**
6th	Broadway	5980	6739
7th	Broadway	6384	5636
5th	Broadway	5930	4516
7th	Hill	3390	4338
5th	Hill	4108	3790
9th	Broadway	1247	2707

Table 4-6. Average Daily Boardings and Alightings at Metro Bus Stops Within The Project Area, Fiscal Year 2010 (1st Quarter)			
East/West Street	North/South Street	Average Daily Boardings	Average Daily Alightings
1st	Hill	2682	3280
5th	Spring	2229	2152
5th	Grand	2230	3151
6th	Hill	1153	3206
7th	Flower	3449	1659
7th	Spring	1656	1262
6th	Hope	1906	2533
1st	Broadway	2355	2804
8th	Broadway	3221	3436
7th	Main	1097	1856
8th	Hill	1098	1148
3rd	Broadway	1694	1079
7th	Olive	2797	1244
4th	Broadway	1382	1336
5th	Olive	2245	525
7th	San Pedro	1375	1339
3rd	Hill	824	1232
Temple	Broadway	1192	742
5th	Los Angeles	1067	590
Temple	Hill	738	936

Table 4-6. Average Daily Boardings and Alightings at Metro Bus Stops Within The Project Area, Fiscal Year 2010 (1st Quarter)			
East/West Street	North/South Street	Average Daily Boardings	Average Daily Alightings
7th	Grand	931	1578
8th	Hill	1098	1148
Temple	Spring	785	943
8th	Spring	439	378
9th	Main	890	931
6th	Main	405	764
7th	Hope	421	1021
7th	Alameda	948	1124
1st	Spring	733	974
6th	Spring	649	489
6th	Central	853	751
7th	Maple	747	757
7th	Figueroa	243	1028
7th	Central	471	518
6th	Los Angeles	525	1320
5th	Flower	972	295
4th	Hill	678	489
5th	Wall	1016	261
4th	Spring	18	209
9th	Hill	245	406

Table 4-6. Average Daily Boardings and Alightings at Metro Bus Stops Within The Project Area, Fiscal Year 2010 (1st Quarter)			
East/West Street	North/South Street	Average Daily Boardings	Average Daily Alightings
7th	Los Angeles	418	350
8th	Olive	537	268
6th	Grand	192	741
6th	San Pedro	288	568
9th	Olive	217	396
6th	Wall	209	485
3rd	Grand	215	736
Wilshire	Flower	469	356
9th	Grand	202	331
6th	Alameda	351	364
5th	San Pedro	515	221
Temple	Grand	211	522
General Thaddeus	Olive	583	276
8th	Flower	386	309
1st	Hope	350	311
8th	Grand	230	226
1st	Main	258	234
3rd	Spring	91	140
Wilshire	Figueroa	253	352
6th	Gladys	77	303

Table 4-6. Average Daily Boardings and Alightings at Metro Bus Stops Within The Project Area, Fiscal Year 2010 (1st Quarter)			
East/West Street	North/South Street	Average Daily Boardings	Average Daily Alightings
8th	Main	23	131
7th	Towne	117	157
7th	Ceres	28	159
1st	Judge John Aiso	256	296
9th	Hope	234	280
7th	Gladys	125	43
5th	Central	135	71
1st	Olive	318	44
8th	Figueroa	130	113
5th	Towne	216	66
1st	Los Angeles	112	224
9th	Figueroa	73	172
Temple	Figueroa	130	155
7th	Francisco	66	98
Aliso	Spring	131	6
6th	Towne	66	212
Aliso	Los Angeles	121	7
6th	Kohler	139	240
5th	Figueroa	35	172
Temple	Los Angeles	76	91

Table 4-6. Average Daily Boardings and Alightings at Metro Bus Stops Within The Project Area, Fiscal Year 2010 (1st Quarter)			
East/West Street	North/South Street	Average Daily Boardings	Average Daily Alightings
1st	Grand	18	126
6th	Flower	89	94
3rd	Main	12	5
Winston	Main	50	6
Division 1 Layover		4	4
Temple	Judge John Aiso	74	100
4th	Flower	65	22
1st	San Pedro	256	296
2nd	Spring	44	42
Temple	Main	21	69
Wilshire	Hope	8	142
5th	Main	592	491
2nd	Grand	22	110
Diamond	Figueroa	7	47
James M Wood	Francisco	15	21
Temple	Hope	45	10
3rd	Flower	39	35
3rd	Figueroa	13	42
2nd	Olive	159	49
2nd	Main	13	85

Table 4-6. Average Daily Boardings and Alightings at Metro Bus Stops Within The Project Area, Fiscal Year 2010 (1st Quarter)			
East/West Street	North/South Street	Average Daily Boardings	Average Daily Alightings
4th	Figueroa	54	63
2nd	Figueroa	7	33
6th	Maple	109	96
9th	Flower	5	4
2nd	Hill	69	41
8th	Francisco	6	5
Maple Lot		759	442

Source: Los Angeles County Metropolitan Transportation Authority, 2009

4.3.3 Regional Objectives

SCAG is responsible for regional transportation planning for six counties within Southern California: Imperial, Los Angeles, Orange, Riverside, San Bernardino, and Ventura. In May of 2008, SCAG released its Regional Transportation Plan (RTP) entitled "Making the Connections." This document provides a basic policy and program framework to improve the transportation system and integrate it with the population growth patterns for the region through 2035.

Making the Connections is a performance-based plan with the following goals:

- Maximize mobility and accessibility,
- Ensure safety and reliability,
- Preserve our transportation system,
- Maximize productivity of our system,
- Protect the environment,

- Encourage land-use and growth patterns that complement our transportation system, and
- Maximize security through improved system monitoring, rapid recovery planning, and coordination with other agencies.

SCAG developed performance indicators and measures to quantify the goals and evaluate progress towards achieving the goals. Table 4-7 lists the performance indicators, associated measures, and final projected outcomes. The outcomes are estimated for the Plan as a whole for 2035, and not for individual projects.

If no action is taken, performance in the region will worsen. SCAG projects that between Base Year 2000 and 2035:

- Average travel speed will reduce by 12.5 percent from 31.0 miles per hour (mph) to 27.1 mph.
- Daily person-hours of delay will increase by over 100 percent from 5.9 million hours to 12.6 million hours.
- Average daily delay per person will increase by 58 percent from 20.0 minutes to 31.5 minutes.
- The percentage of peak period evening work trips completed within 45 minutes for autos will decrease from 74 percent to 73 percent; for public transit, it will decrease from 43 percent to 42 percent.

Table 4-7. Performance Indicators, Measures, and Outcomes of 2035 Goals

Performance Indicator	Performance Measure		Plan 2035	Base Year 2003	Baseline 2035
Mobility	Average Daily Speed (Miles per Hour)		29.5	31.0	27.1
	Average Daily Delay (Daily Person Hours in millions)		10.4	5.9	12.6
Accessibility	Percent PM peak period	Autos	76%	74%	73%

Table 4-7. Performance Indicators, Measures, and Outcomes of 2035 Goals

Performance Indicator	Performance Measure		Plan 2035	Base Year 2003	Baseline 2035
	work trips within 45 minutes of home	Transit	45%	43%	42%
Reliability	Percent variation in travel time	6AM-7AM	14%	16%	N/A
		7AM-8AM	20%	22%	
		8AM-9AM	21%	23%	
		3PM-4PM	23%	25%	
		4PM-5PM	23%	26%	
		5PM-6PM	25%	28%	
		6PM-7PM	23%	25%	
Safety	Daily accident rates per million persons	Fatalities	0.27	0.28	0.31
		Injuries	17.5	16.9	17.8
		Property Damage	30.5	29.0	30.8
Productivity	Roadway capacity – vehicles per hour/lane (Lost Lane Miles)	AM peak	232	288	N/A
		PM peak	348	434	
Sustainability	Total cost per capita to sustain current system performance		Plan 2035 estimates the transportation system will perform better in safety, preservation but worse in delay per capita		

Table 4-7. Performance Indicators, Measures, and Outcomes of 2035 Goals

Performance Indicator	Performance Measure		Plan 2035	Base Year 2003	Baseline 2035
Preservation	Percent of bridges and roadways requiring rehabilitation	Roadways	28%	11%	N/A
		Bridges	24%	6%	
Environmental	Emissions generated by travel (over Baseline 2030)	CO	6-8% reduction		
		PM10	6-8% reduction		
		Exhaust PM10	8-11% reduction		
Environmental Justice	Benefit vs. Burden by quintiles – Auto Percentage of Tax Paid and Time Savings (Quintile 1=lowest income, Quintile 5=highest income)		Plan 2035 estimates:		
			Expenditure	Time Savings	
		1	9%	11%	
		2	13%	15%	
		3	18%	21%	
		4	24%	25%	
		5	36%	27%	
	Benefit vs. Burden by quintiles – Local Transit Percentage of Tax Paid and Time Savings (Quintile 1=lowest income, Quintile 5=highest income)		Plan 2035 estimates:		
			Expenditure	Time Savings	
		1	9%	37%	
		2	13%	28%	

Table 4-7. Performance Indicators, Measures, and Outcomes of 2035 Goals

Performance Indicator	Performance Measure		Plan 2035	Base Year 2003	Baseline 2035
		3	18%		19%
		4	24%		11%
		5	37%		5%

Source: SCAG 2008 RTP

The transit improvements within the Regional Connector project corridor would contribute to alleviating the mobility problem in the region and to achieving the Destination 2035 goals. It would do this by:

- Extending the reach and connectivity of all but one of Metro's operational and under-construction LRTs;
- Broadening the range of downtown destinations reachable with one transfer from the Metro Red and Metro Purple Lines;
- Alleviating congestion on the downtown bus network; and
- Increasing the availability of direct service to multiple destinations in Los Angeles County for passengers arriving on intercity services at Union Station.

The area from which Regional Connector ridership is expected to be drawn includes several freeways and major intersections that have significant traffic congestion and long delays. The improved convenience of transit improvements in the Regional Connector Transit Corridor would encourage use of a public transit alternative that would reduce daily vehicle trips, miles traveled, and congestion on the region's roadways.

Transit improvements within the Regional Connector Transit Corridor would also augment public transportation service originating in areas with high population densities and households dependent on public transit. This would increase potential ridership, thereby increasing the project benefits and making it more cost-effective. In addition, the Regional Connector's service area covers the County's most highly-concentrated employment area and a major cultural, entertainment, and tourist destination.

5.0 NEED FOR REGIONAL CONNECTOR TRANSIT CORRIDOR PROJECT

In evaluating the mobility and travel conditions within the project area several issues emerge that reveal a need to provide improved transit connections and service across downtown Los Angeles. These needs include:

- Growth in population and employment will continue to draw both local and regional residents to the project area creating demand for transit services.
- Transit system expansions to the radial network centered on downtown Los Angeles will continue to funnel riders into the unconnected core creating concerns related to insufficient Red Line capacity for connecting riders, overcrowded station platforms, and regional system schedule reliability.
- Transit dependent populations within the project area include low income households, significant populations of very old persons, and a high percentage of zero car households.
- Travel demand data highlights the congested nature of the downtown core, the high percentage of commuters that come from outside of the project area, and the built up nature of the project area that prevents expansion of the road network.
- Transit usage requires multiple transfers for cross-town trips for both local and regional riders increasing travel times.
- Local land use plans and policies support increased transit alternatives, linking the regional system through downtown, and transit and pedestrian friendly design in downtown communities.

5.1 Growth and Increased Demand for Transit Services

One of the most pressing issues affecting the region's ability to effectively meet travel demands is population growth. Los Angeles County alone is expected to increase 18 percent to a total of 12.3 million people by 2035. Within the project area, population growth is expected to exceed 31 percent (Table 5-1). Along with increased population, employment within the project area is also expected to increase 7 percent by 2035 (Table 5-1). This expected growth will lead to increased travel demand throughout the region.

Employment in the project area is higher than the population (Table 5-1) which indicates that most of the people who work in the project area do not also live there and must come into the area from the surrounding region. As shown in Figure 5-1 and 5-2, the areas of highest

population density are not in the same locations as the areas of highest employment density. This geographical difference between where people live and where they work creates a transportation need. Improvements to transit services in downtown Los Angeles will be needed to bring workers from areas of high population and low employment density to the project area, where the highest concentration of employment opportunities is located. Figures 5-3 and 5-4 show that this condition is not expected to change in the projection year 2035.

In addition to regional commuters, the increase in population within the project area will continue to create a need to provide a variety of transit options within downtown Los Angeles. Transit improvements that increase mobility within the project area will benefit this increased population as well.

Table 5-1. Population, Household, and Employment Growth

Area of Growth	2008	2035 Forecast	Percent Change 2008-2035 (%)
Population			
Project Area	19,396	25,417	31.0
LA County	10,449,838	12,338,620	18.1
Households			
Project Area	9,648	13,054	35.3
LA County	3,298,886	4,003,501	21.4
Employment			
Project Area	171,750	184,567	7.4
LA County	4,498,598	5,041,172	12.1

Source: SCAG, 2008 data and 2035 projections.

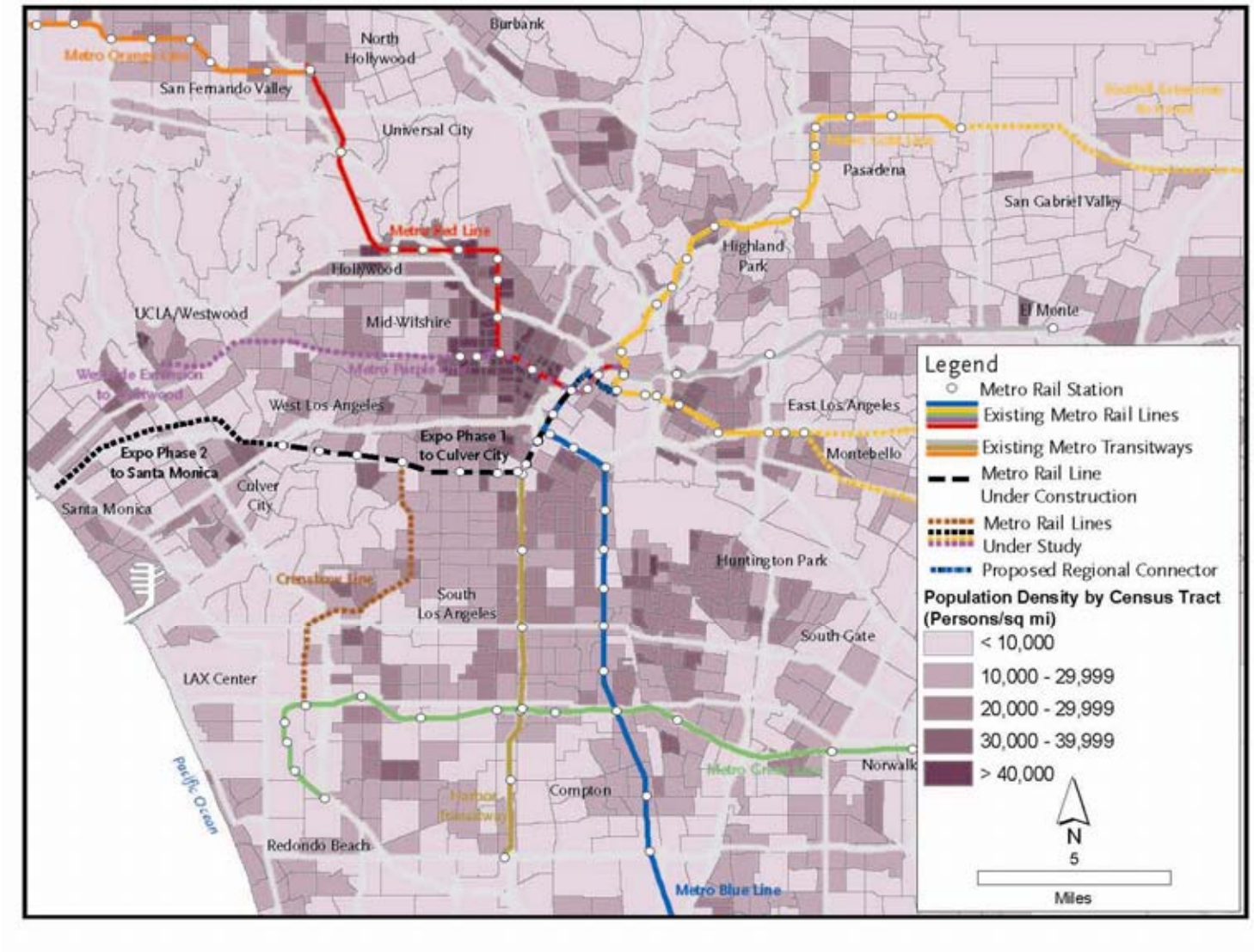

Figure 5-1. Regional Population Density (2005)

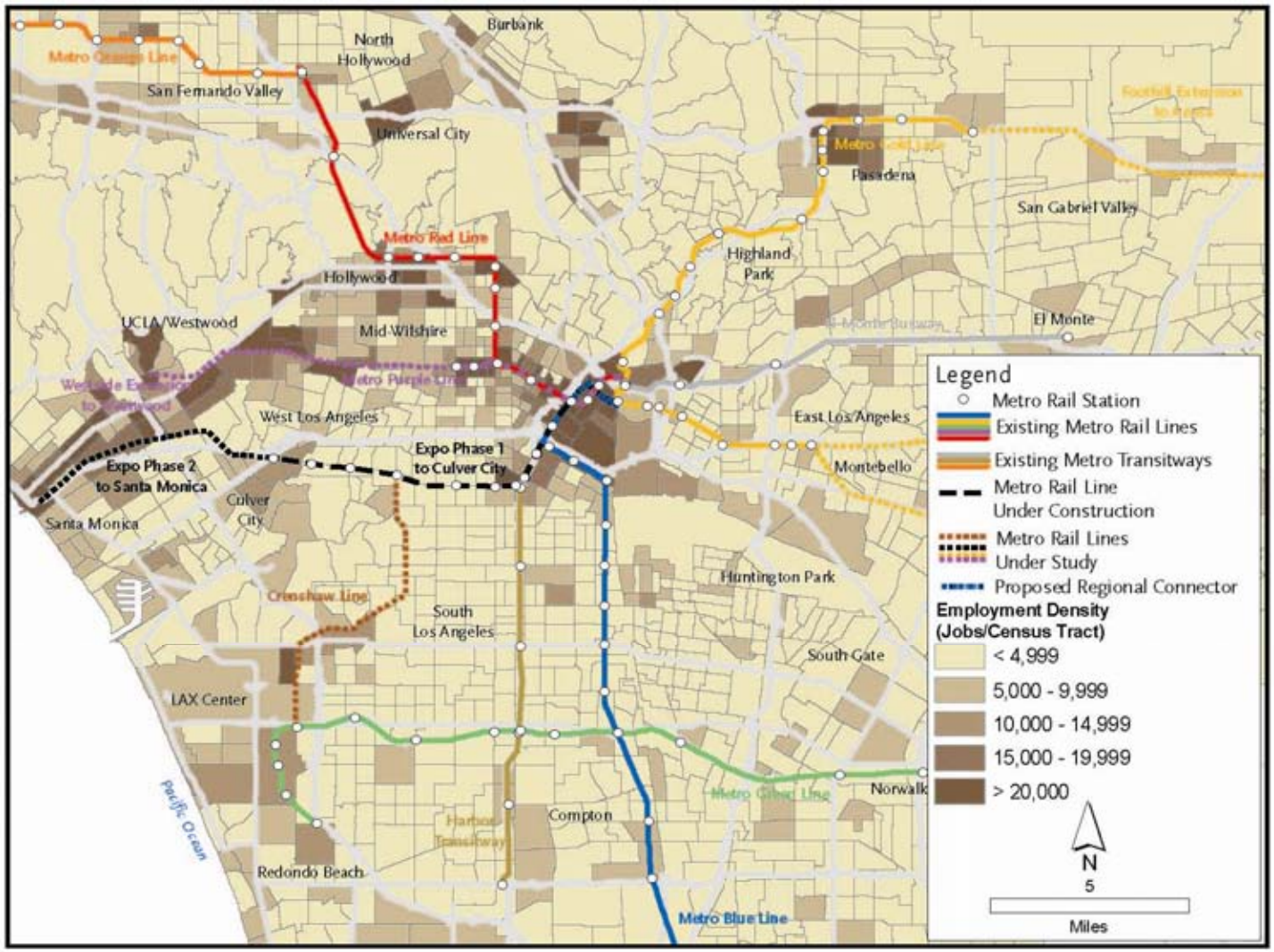

Figure 5-2. Regional Employment Density (2005)

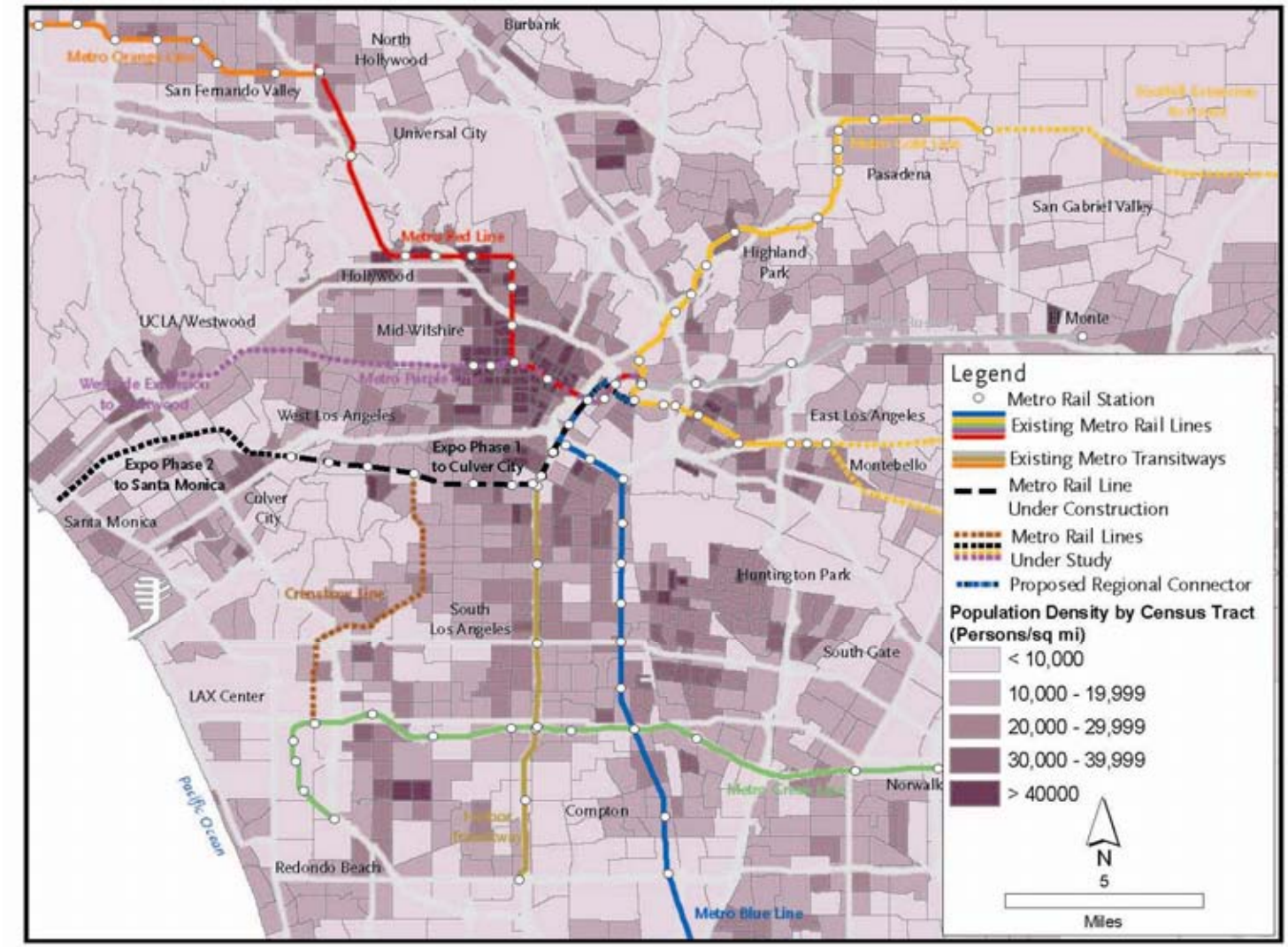

Figure 5-3. Projected Regional Population Density (2035)

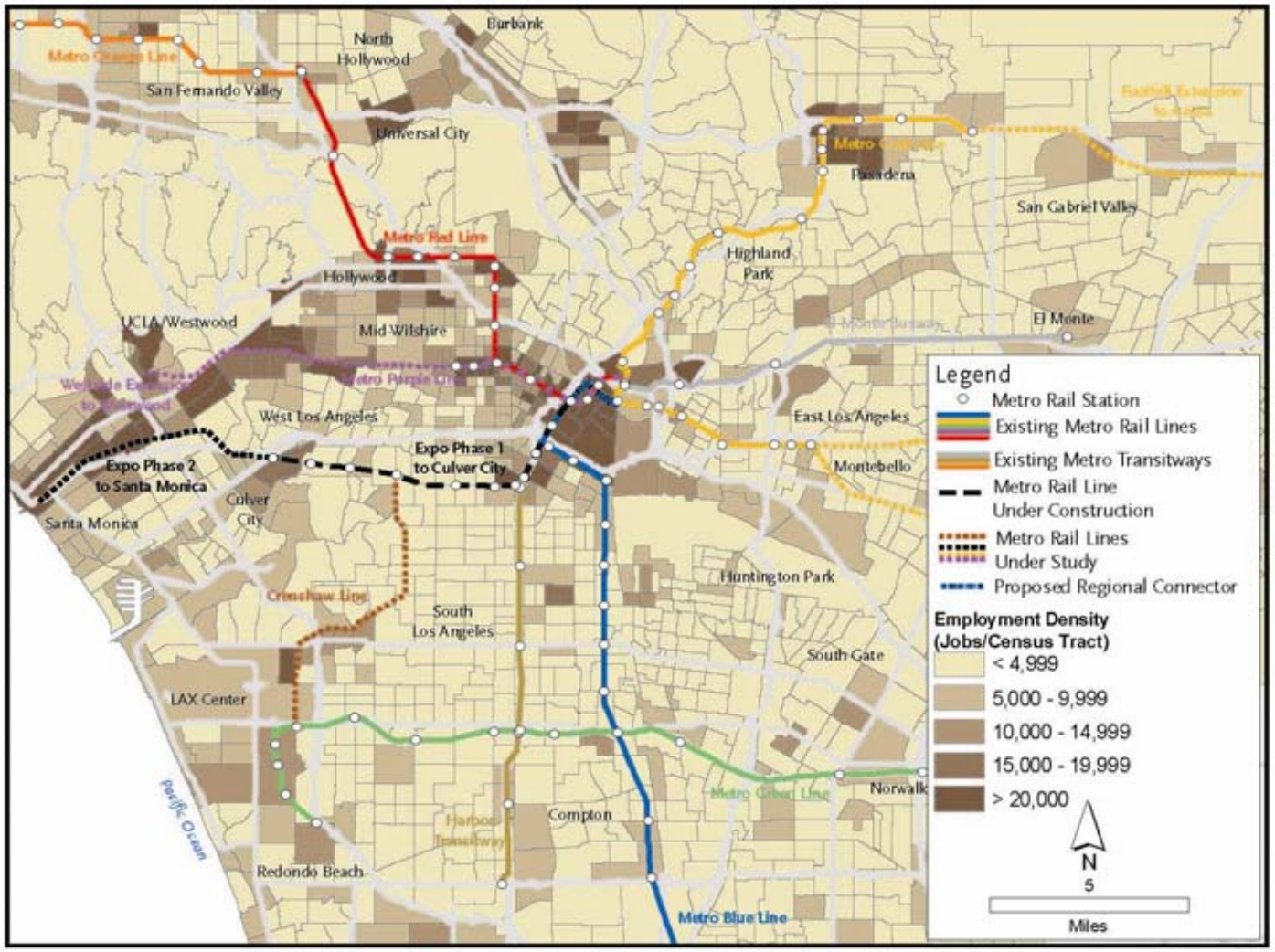

Figure 5-4. Projected Regional Employment Density (2035)