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Nexus Study for the USC University Park Specific Plan Pursuant to Los Angeles City Council Motion CF 08-2620

Other Related References:
City Planning Case Numbers: CPC-2011-927-GPA-ZC-HD-SP-CUB, CPC-2011-1171-DA
Environmental Case Number: ENV-2009-271-EIR; State Clearinghouse Number: 2009011101

On December 3rd, 2008, a motion (CF 08-2620) was passed by the City Council directing the City Planning Department to develop the USC University Park Specific Plan and a nexus study in response to the completion of the University's 2030 University Park Campus Master Plan (USC Master Plan, drafted in 2005). The Master Plan is a road map for the development of new academic and University-serving uses, retail/commercial uses, residential development, a theater, a hotel and conference center, and a new University-affiliated K-8 laboratory school and community educational academy on three separate sub-areas owned by the University. In order to guide the University's physical development as outlined in the Master Plan, the City initiated the drafting of a Specific Plan.

Background

The University of Southern California, located within the South Los Angeles Community Plan, is one of the largest and most prominent higher learning institutions in the region, with a projected student population of over 36,000 by 2030. Initially established as a commuter school, the University's physical development and land use pattern have in the past encouraged a town-gown conflict where residents of South Los Angeles felt that some of past goals of the University have been in conflict with the values of those residents adjacent to the campus. To arrest such a conflict, the City initiated the preparation of a Specific Plan seeking to establish the land use regulatory framework for the physical development that is proposed in the USC Master Plan, and foster a unified vision that benefits both the University and the surrounding community at large within the context of this proposed development.

The development and preparation of the subject Specific Plan, and the associated Development Agreement (DA), Environmental Impact Report (EIR) for CEQA clearance, and the Nexus Study have all been vetted through a city administered public process. In addition to the CEQA required process, staff had conducted multiple meetings throughout 2009 and part of 2010 by engaging community stakeholders, neighborhood councils, Community Planning Advisory Committees(CPACs), and Council Districts 8, 9 and 1, to meaningfully engage the public.

Once staff completes the drafting of the Specific Plan and related Development Agreement, additional workshops would be held in winter 2011, in order to share information and receive more input from the public. Additional hearings would be held by a hearing officer to collect testimony from the public before taking the entire project to the Area Planning Commission (APC) and Citywide Planning Commission (CPC) in the second quarter of 2012.

Project Status

Following the completion of the Final Environmental Impact Report (FEIR) on July 5, 2011, the Department of City Planning is releasing this Nexus Study. The Nexus Study is one component of the following four items that constitute the USC Specific Plan:

- Nexus Study
- Environmental Impact Report (EIR)
- Specific Plan, with Development Agreement
- (3) Core Campus Projects that are processed as part of Site Plan Review

Noticeably exceeding the boundaries of the proposed Specific Plan, the Nexus Study Area is bounded by Washington Boulevard to the north, Grand Avenue to the east, Normandie Avenue to the west and Vernon Avenue to the south. Since the adoption of the motion (CF-08-2620), the Department of City Planning has engaged USC, Council Districts 8, 9, and 1, as well as other stakeholders in the community at large on the development of this nexus study.

Use of the Nexus Study and the EIR. As directed by subject council motion, the Nexus Study looked in detail into aspects of the community and issues within the larger Nexus Study Area, including employment, facilities, services, housing, green space, parking, car-sharing opportunities and infrastructure needs, while the EIR assessed environmental impacts limited only to the project site and surrounding areas, pursuant to CEQA. The findings of the Nexus Study, therefore, are not meant to take the place of the CEQA required EIR, but to help City Departments identify services that are in short supply within this study area.

The release of the Nexus Study along with the EIR is for the purpose of disclosure and availability of information for the City's decision making bodies and the public.

CEQA Process Timeline. As part of the EIR process, the City of Los Angeles circulated a Notice of Preparation (NOP) for a 30-day review period, beginning January 30, 2009 and ending March 2, 2009. In addition, a public scoping meeting was held on February 18, 2009 to collect comments on the scope of impacts the EIR should study. A Draft EIR was circulated between May 27 and July 12, 2010. Following the Draft Circulation, to provide more time for responsible and trustee agencies as well as the public to comment on the Draft EIR, the comment period was extended through July 27, 2010. Thus, the public review period of the Draft EIR lasted for a total of 60 days, well beyond the 45 days required by CEQA Guidelines Section 15105(2). In addition, although not required by CEQA, during the Draft EIR comment period, the City of Los Angeles held an open house on June 16, 2010 that gave the public additional opportunity to review the Draft EIR and obtain information regarding the EIR process.

During the same period, staff has been drafting a proposed specific plan and associated Development Agreement (DA). All of the required CEQA analyses and mitigation measures for the Proposed Project are contained in the Final EIR. As demonstrated by the information herein, the potential CEQA impacts of the Proposed Project within the Nexus Study Area are fully accounted for in the Final EIR.

PLUM Update on July 19, 2011. Following the release of this Nexus Study, the Planning and Land Use Management (PLUM) Subcommittee of the City Council is scheduled to receive an update on the Specific Plan on **July 19, 2011.** Members of the public are encouraged to attend,

in order for them to have updated information about the status and progress of the Specific Plan and its components.

There are still numerous steps and opportunities for public comments that must take place before the Specific Plan is adopted. A Site Plan Review public hearing for one (Cinematic Arts Building inside the campus) of three (3) separate Core Campus projects that were studied in the EIR will take place on August, 5, 2011. Following the completion of all the three (3) Core Campus projects, it is anticipated that the Specific Plan will move forward with release of a draft of the Specific Plan and Development Agreement for public review. Thereafter, staff would organize community workshops and a formal public hearing estimated to take place in the 2nd Quarter of 2012. This will be followed by City Planning Commission and City Council hearings.

You may contact Faisal Roble at 213-978-1168 or Jason Chan at 213-978-1178 for more information on the Nexus Study or the USC Specific Plan Program.

Sincerely,

Alan Bell, AICP
Deputy Director
Department of City Planning

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A City Council Motion CF-08-2620

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Section A. Introduction

The University of Southern California (USC) has proposed the USC Development Plan (Proposed Project), which provides for development in the University Park Campus area. Proposed development would provide up to approximately 2,500,000 square feet of academic and University-serving uses; up to approximately 350,000 square feet of retail/commercial uses; up to approximately 2,135,000 square feet of residential development; and a 165,000 square foot hotel and conference center. In addition, a new University-affiliated K-8 laboratory school and community educational academy may be developed. Construction of the Proposed Project would be implemented in phases over a number of years extending to 2030.

In response to the Proposed Project, a Los Angeles City Council Motion adopted on December 3, 2008 (refer to Appendix A) directed the Planning Department, working with the First, Eighth and Ninth Council Districts, to work with USC to develop this Nexus Study for the larger community area surrounded by USC. As shown in Figure A-1 on page A-2, this area, referred to herein as the "Nexus Study Area," is bounded by Washington Boulevard to the north, Grand Avenue to the east, Normandie Avenue to the west and Vernon Avenue to the south. The Nexus Study Area was determined based on the recommendations of the City Council and adjusted to account for the census tracts in the surrounding area in order to provide a conservative analysis. A map providing an overlay of the census tracts with the Nexus Study Area is provided in Figure A-2 on page A-3.

As set forth in the Council Motion, the purpose of this Nexus Study is to assess the impacts of the Proposed Project on employment, infrastructure, facilities and services in the Nexus Study Area. The Council Motion also states that the Nexus Study should analyze affordable housing, green space, parking, car-sharing opportunities and infrastructure needs in the Nexus Study Area as it relates to impacts of the Proposed Project. In addition, the Nexus Study is intended to establish the nexus between new development in the Specific Plan area and impacts in the Study Area. The scope of this Nexus Study as requested by the Los Angeles City Council duplicates in certain ways and exceeds in others the required topics and scope of analyses required under the California Environmental Quality Act (CEQA). It should be noted that this Nexus Study is not required by CEQA and is not intended to be used for any CEQA purpose related to the Proposed Project. Furthermore, in accordance with CEQA, a comprehensive Draft Environmental Impact Report (Draft EIR) for the Proposed Project was recently circulated for public review

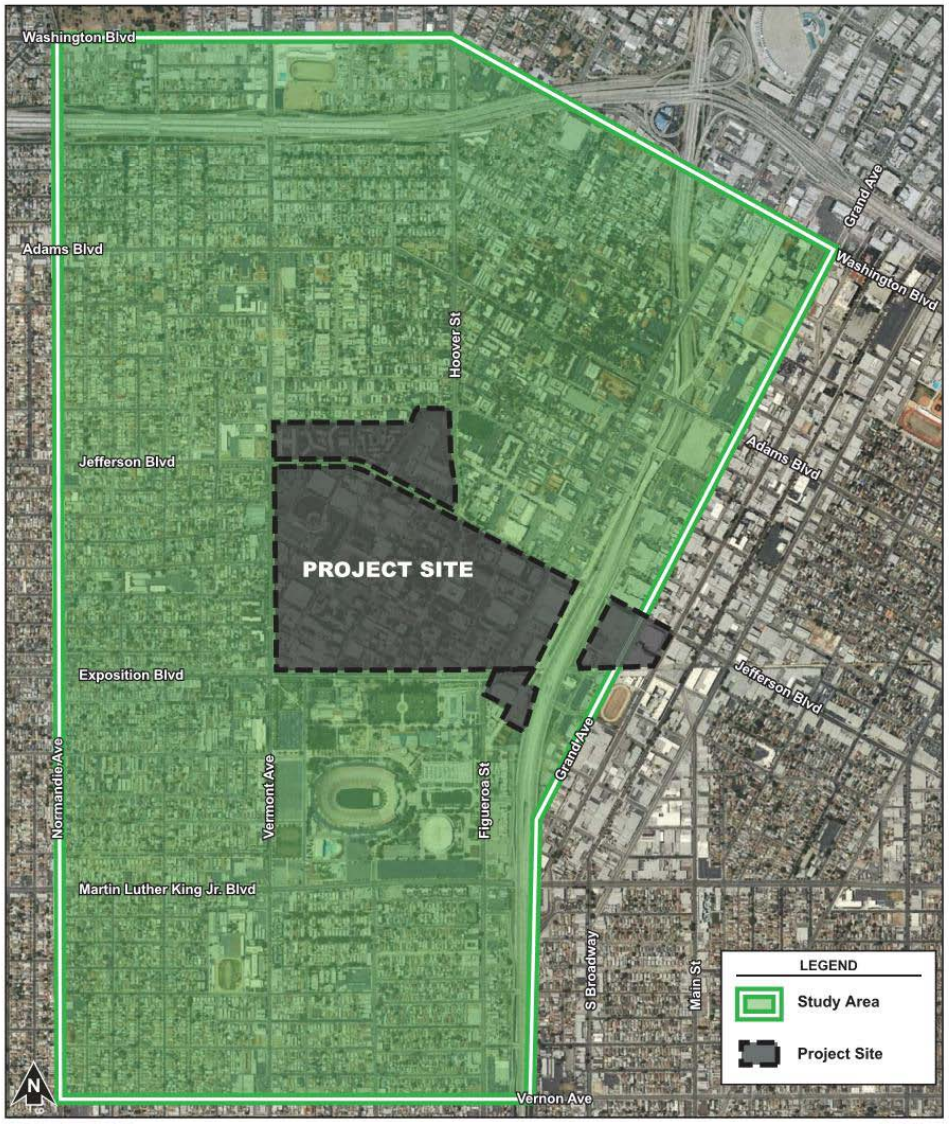
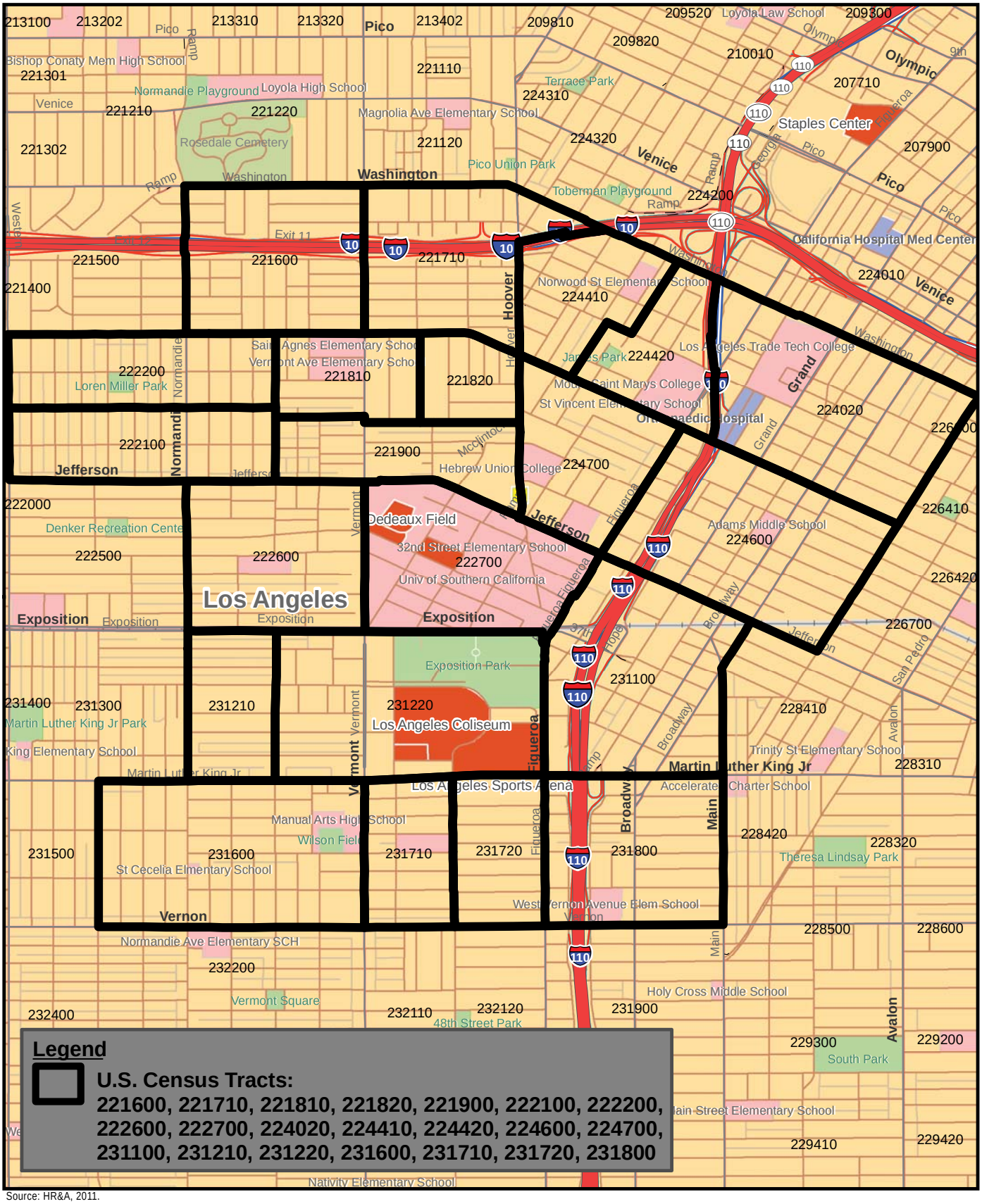


Figure A-1 - Map of Nexus Study Area



Source: HR&A, 2011.

N

0 0.15 0.3 Miles

Figure A-2

Overlay of Census Tract Boundaries and Nexus Study Area

and comment. This Nexus Study does not contain any new analyses or mitigation measures for the Proposed Project that are required by CEQA. All of the required CEQA analyses and mitigation measures for the Proposed Project are contained in the Draft EIR. As demonstrated by the information herein, the potential CEQA impacts of the Proposed Project within the Nexus Study Area are fully accounted for in the Draft EIR.

This Nexus Study includes the following specific sections:

Section A Introduction

Section B Analysis of Study Area Housing Conditions (Including Housing Affordability)

Section C Analysis of Study Area Employment Conditions and Citywide Fiscal Conditions

Section D Park Space and Recreation

Section E Parking

Section F Alternative Transportation

Section G Public Infrastructure (Wastewater, Water, and Storm Drain Needs)

Section H Public Facilities and Services (Fire Protection and Police Protection)

Section I Conclusion

Sections B through H include an introduction, a discussion of existing conditions, an overview of the regulatory framework, an analysis of Project impacts as set forth in the Draft EIR, a list of any mitigation measures set forth in the Draft EIR and an evaluation of impacts in the Nexus Study Area. As demonstrated in each of the following sections, the analysis and conclusions regarding impacts within the Nexus Study Area are the same as those identified in the Draft EIR. Specifically, no new environmental impacts would occur within the Nexus Study Area that have not already been identified in the Draft EIR.

Section B. Analysis of Study Area Housing Conditions (Including Housing Affordability)

1. Introduction

As discussed in Section A, the environmental impact analyses of the USC Development Plan Project required pursuant to CEQA are set forth in the Draft EIR. This Nexus Study was requested by the Los Angeles City Council with topics that duplicate some of the analyses in the Draft EIR and exceeds in certain ways the required topics and scope of analyses under CEQA. However, this Nexus Study is not intended to satisfy any CEQA requirement and should not be used for any CEQA purpose related to the Project. The Nexus Study does not contain any new analyses or mitigation measures for the Project that are required by CEQA. All of the required CEQA analyses and mitigation measures for the Project are contained in the Draft EIR.

This section of the Nexus Study sets forth information regarding housing and households in the Draft EIR for the USC Development Plan for the Nexus Study Area, including issues related to affordable housing.[1] It begins with a discussion of the general housing policy context relevant to the Nexus Study Area, and provides an explanation of terms that together define the concept of "affordable housing" as commonly used in the City's system of land use regulations. The existing setting subsection provides a summary of housing supply and demand characteristics in the Nexus Study Area, including supply and demand related to USC students, faculty and staff. Additional information is also provided on recent City regulatory changes intended to increase the supply of housing, including affordable housing, in the general vicinity of the Nexus Study Area.

Finally, this section presents analysis of housing impacts associated with the USC Development Plan as presented in the Draft EIR,[2] and compares them with the applicable City CEQA significance thresholds. Because the Draft EIR includes discussion of impacts

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[1] *The Nexus Study area is the same geography identified as the Local Area in the Environmental Impact Report.*

[2] *City of Los Angeles, USC Development Plan Draft Environmental Impact Report, SCH No. 2009011101, prepared by Matrix Environmental, May 2010, Sections IV.I.2 (Housing) and IV.I.3 (population) and Appendix J (Employment, Housing and Population Technical Report).*

in the Nexus Study Area, the housing impacts presented in this section of the Nexus Study are the same as those identified in the Draft EIR.

2. Existing Setting

a. The General Housing Policy Context in Southern California, Los Angeles County and the City Of Los Angeles

As noted in the Draft EIR, California, and especially its coastal metropolitan areas like Los Angeles, faces a deepening housing crisis, according to State officials.[3] Propelled by continuing employment and population growth, but with uneven and insufficient housing construction, the housing supply shortfall has left California with one of the tightest and most expensive housing markets in the nation, despite the overall decline in median prices resulting from the current national recession. As a result, the State's rate of home ownership continues to be lower than in the nation as a whole.

There are many reasons for the housing production shortfall. Some of these include the increasing cost of land, particularly in the coastal areas where housing demand is strongest, and the complexities of the development approval process. General economic and residential financing circumstances also come into play.

Almost all future California population and household growth will occur in metropolitan areas, and most of that will occur in southern California. According to SCAG's 2008 regional growth forecast, Los Angeles County alone is projected to add about 2.1 million people and about 791,000 households between 2005 and 2030.[4] As the largest city in the County, the City of Los Angeles will receive most of the County's future growth.

Another perspective on the scale of the housing supply problem specifically in the City of Los Angeles ("City") is provided by the Southern California Association of Governments (SCAG). Among its many regional planning responsibilities, SCAG is charged with calculating a target number of new housing units that each city and county in Southern California should plan to accommodate over a 7.5-year planning period in order to meet its regional "fair share" of future housing construction need. The 2007 SCAG

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[3] *State of California Department of Housing and Community Development, "The State of Housing in California 2009: Supply and Affordability Problems Remain," (available on-line at: http://www.hcd.ca.gov/).*

[4] *Southern California Association of Governments (SCAG), 2008 Regional Transportation Plan, Regional Growth Forecast (available at: http://www.sacg.ca.gov/forecast/index.htm). Hereinafter referred to as "2008 SCAG Regional Growth Forecast."*

Regional Housing Needs Assessment (RHNA)[5] assigned 112,876 units to the City of Los Angeles for the January 1, 2006-June 30, 2014 planning period, or an average of about 15,050 units per year. However, the City of Los Angeles issued permits for only 6,448 new units in 2008, and only 2,714 new units in 2009.[6]

Table B-1 on page B-4 includes data from a special analysis from the 2000 U.S. Census that provides a summary of the kinds of housing problems facing households in the City as a whole, and particularly low- and moderate-income households. These data show, for example, that as of the 2000 census, about three-quarters of extremely low- and very low- and low-income renter and owner households were paying in excess of 30 percent of household income for housing costs, and nearly half of low-income renter and owner households were also paying more than 30 percent of income for housing costs. Comparable data for the Nexus Study Area are not available.

b. Los Angeles County Housing Affordability Thresholds

"Affordable housing" means different things to different people, but the term has precise meaning under Federal, State and local laws. In general, the regulatory definition of "affordable housing" links family or household (not individual) incomes with household size or number of bedrooms per unit, and a maximum percentage of household income that should be devoted to housing costs.

In the regulatory environment, rental housing is typically deemed to be "affordable" if costs (e.g., monthly rent and utilities) do not exceed 30 percent of household income. Ownership housing (i.e., single-family homes, condominiums and townhouses) is typically deemed "affordable" using a somewhat higher percentage of household income for the combination of other costs (e.g., mortgage, mortgage insurance, property taxes, property insurance and homeowners' association dues), and to account for the income tax benefits of ownership. The precise calculation rules vary among State and Federal programs that are often used to help finance the development and operation of affordable housing. In the City of Los Angeles, these calculations also sometimes depend on a particular land use entitlement procedure under which a development project is approved.

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[5] *SCAG, "Final Regional Housing Need Allocation Plan - Planning Period (January 1, 2006 - June 30, 2014) for Jurisdictions within the Six-County SCAG Region," approved by the SCAG Regional Council on July 12, 2007, available online at: http://www.scag.ca.gov/Housing/pdfs/rhna/RHNA_FinalAllocationPlan071207.pdf.*

This RHNA was approved by the State Department of Housing and Community Development on September 7, 2007.

[6] *Per City of Los Angeles Dept. of City Planning Quarterly Report of Building Activity (available on-line at: http://cityplanning.lacity.org/DRU/HomeBldg.cfm).*

Table B-1
Housing Problems for Households, City of Los Angeles, 2000

Household by Type, Income, & Housing Problem	Renters					Owners					Total Households
	Elderly 1 & 2 Member Households	Small Related (2 to 4) Family Households	Large Related (5 or more) Family Households	Non-Family Households	Total Renters Households	Elderly 1 & 2 Member Households	Small Related (2 to 4) Family Households	Large Related (5 or more) Family Households	Non-Family Households	Total Owners Households	
1. Household Income <=50% MFI	55,995	108,320	57,315	88,495	310,125	27,197	14,865	10,680	9,332	62,074	372,199
2. Household Income <=30% MFI	35,040	59,290	28,810	56,800	179,940	12,573	7,235	4,105	5,488	29,401	209,341
3. % with any housing problems	71.2	90.4	98	70.2	81.5	70.2	80	93.9	66.7	75.3	80.6
4. % Cost Burden >30%	68.8	80.4	84.5	65.4	74	69.8	74.5	79.7	65.5	71.5	73.7
5. % Cost Burden >50%	52.4	69.5	66.4	59.2	62.4	53.4	69.7	73.7	61.6	61.7	62.3
6. Household Income >30% to <=50% MFI	20,955	49,030	28,505	31,695	130,185	14,624	7,630	6,575	3,844	32,673	162,858
7. % with any housing problems	77.3	93.7	98	91.8	91.5	57	86.6	96.3	82.2	74.8	88.2
8. % Cost Burden >30%	70.6	80.5	68.6	87.2	77.9	56.7	81.8	86.5	81.6	71.5	76.6
9. % Cost Burden >50%	39	26.5	13.5	53.2	32.2	37.3	68.7	68.8	68.5	54.6	36.7
10. Household Income >50% to <=80% MFI	13,905	60,225	32,395	44,280	150,805	19,878	17,685	14,705	5,705	57,973	208,778
11. % with any housing problems	63.7	78.4	95.2	74	79.4	41.2	79	93.8	75	69.4	76.6
12.% Cost Burden >30%	55.7	40.4	21.5	64.9	44.9	41	74.4	73	74	62.6	49.8
13. % Cost Burden >50%	14.9	6.5	2.3	15.7	9	23.5	47.6	29.9	55.6	35.6	16.4
14. Household Income >80% MFI	21,934	119,495	36,600	144,285	322,314	80,989	171,724	59,298	59,760	371,771	694,085
15. % with any housing problems	23.8	37.7	83.9	20.3	34.2	18.3	32.4	62.7	35.5	34.6	34.4
16.% Cost Burden >30%	17.7	9.1	4.1	14.3	11.5	18	27.4	24.2	34.6	26	19.3
17. % Cost Burden >50%	2.6	0.9	0.3	1.7	1.3	6	7.2	4.4	10.6	7	4.4
18. Total Households	91,834	288,040	126,310	277,060	783,244	128,064	204,274	84,683	74,797	491,818	1,275,062
19. % with any housing problems	60.1	66.6	93.2	47.3	63.3	31.4	40.1	72.2	43.2	43.8	55.8
20. % Cost Burden >30	55	42.5	41.4	41.2	43.3	31.1	35.2	40.2	42.3	36.1	40.5
21. % Cost Burden >50	31.8	20.6	18.8	21.6	22	17	15.2	17.2	20.7	16.8	20

Definitions:

MFI = HUD Median Family Income.

Any housing problems = Cost burden greater than 30 percent of income and/or overcrowding and/or without complete kitchen or plumbing facilities.

Other housing problems = overcrowding (1.01 or more persons per room) and/or without complete kitchen or plumbing facilities.

Elderly households = 1 or 2 person household, either person 62 years old or older.

Non-Family households = unrelated household members

Related households = household members that are related

Renter = Not including renters living on boats, RVs or vans. This excludes approximately 25,000 households nationwide.

Cost Burden = Cost burden is the fraction of a household's total gross income spent on housing costs. For renters, housing costs include rent paid by the tenant plus utilities.

For owners, housing costs include mortgage payment, taxes, insurance, and utilities.

Source: U.S. Dept. of Housing & Urban Development, CHAS Data Book (available at: http://socds.huduser.org/chas/area.odb). Prepared by HR&A Advisors, Inc.

(1) Income Limits

For purposes of defining affordable housing, Federal, State and local laws typically define households within household income bands measured relative to the median family income (MFI) within a particular geographic area, such as a county. These income bands are used to define household income categories, including extremely low-income (less than 30% of MFI), very low-income (30-50% of MFI), low-income (50-80% of MFI), and moderate-income (80-120% of MFI)

For all of Los Angeles County, including the City of Los Angeles and the Nexus Study Area, certain household income limits are set each year by the U.S. Department of Housing and Urban Development (HUD), and additional limits are established by the State of California's Department of Housing and Community Development (HCD) for use in many affordable housing financing programs, consistent with State regulations and administrative guidelines. These household income limits are shown in Table B-2.

Table B-2
Alternative Affordable Housing Household Income Limits for Los Angeles County, 2009

Persons per Household		1	2	3	4	5	6	7	8
Income Category	% x Area Median Income[1]				Federal Programs				
Extremely Low	30%	$16,650	$19,050	$21,400	$23,800	$25,700	$27,600	$29,500	$31,400
Very Low	50%	$27,750	$31,700	$35,700	$39,650	$42,800	$46,000	$49,150	$52,350
Very Low	60%	$33,300	$38,040	$42,840	$47,580	$51,360	$55,200	$58,980	$62,820
Low	80%	$44,400	$50,750	$57,100	$63,450	$68,550	$73,600	$78,700	$83,750
					State and Local Programs				
Extremely Low	30%	$16,650	$19,050	$21,400	$23,800	$25,700	$27,600	$29,500	$31,400
Very Low	50%	$27,750	$31,700	$35,700	$39,650	$42,800	$46,000	$49,150	$52,350
Lower	80%	$44,400	$50,750	$57,100	$63,450	$68,550	$73,600	$78,700	$83,750
Median	100%	$43,500	$49,700	$55,900	$62,100	$67,050	$72,050	$77,000	$81,950
Moderate	120%	$52,150	$59,600	$67,050	$74,500	$80,450	$86,400	$92,400	$98,350

[1] Most public funding programs for affordable housing apply primarily to household incomes in these categories.

Source: California Department of Housing & Community Development (available on-line at: http://www.hcd.ca.gov/hpd/).
Prepared by: HR&A Advisors, Inc.

(2) Maximum Affordable Rents and Purchase Prices

As noted above, "maximum affordable" rents and purchase prices vary by public assistance program, and in the City of Los Angeles by applicable land use entitlement program. The most commonly used schedules of affordable rents in Los Angeles County are those applicable to various Federal housing programs (e.g., Community Development Block Grant, HOME Investment Partnership Program, and Low-Income Housing Tax Credit program), State programs (e.g., Multifamily Housing Program), and California Redevelopment Law. The schedules for 2009 are compared in Table B-3 on page B-6.

Table B-3
Alternative Affordable Housing Gross Monthly Rent Limits for Los Angeles County, 2009

# Bedrooms/Unit		0	1	2	3	4
Income Category	% x Area Median Income[1]	Federal Programs (e.g., CDBG, HOME, LIHTC)				
Extremely Low	30%	$416	$446	$535	$618	$690
Very Low	50%	$693	$743	$892	$1,030	$1,150
Lower	65%	$883	$947	$1,138	$1,306	$1,438
		State Programs (e.g., MHP)				
Extremely Low	30%	$416	$445	$535	$618	$690
Very Low	50%	$693	$743	$892	$1,030	$1,150
Lower	60%	$832	$891	$1,071	$1,236	$1,380
Moderate	100%	$1,386	$1,486	$1,784	$2,060	$2,300
		Local Programs (e.g., CRA/LA)				
Extremely Low	30%	$326	$373	$419	$466	$503
Very Low	50%	$543	$621	$699	$776	$838
Lower	60%	$652	$745	$838	$932	$1,006
Moderate	110%	$1,195	$1,366	$1,537	$1,708	$1,844

[1] Most public funding programs for affordable housing apply primarily to household incomes in these categories only.

Sources: Los Angeles County Community Development Commission; CA Dept. of HCD; Community Redevelopment Agency of the City of Los Angeles
Prepared by: HR&A Advisors, Inc.

The principal differences in these schedules involve the number of persons assumed to occupy each bedroom in a household, and the details of the math by which the income limits are converted to gross monthly rent (i.e., including the cost of utilities).

(3) Fair Market Rents

Each year, HUD also establishes a schedule of "fair market rents" that are used for administration of its national "Section 8" rental housing subsidy program administered by local housing authorities (e.g., the Housing Authority of the City of Los Angeles, or HACLA), and these rents are also a benchmark used in certain other public housing programs. Under the Section 8 program, tenants pay about one-third of their income for rent, and the difference between the fair market rent and the tenant payment is the amount of public subsidy. HUD grants local Housing Authorities discretion to exceed the Fair Market Rents, and this flexibility applies to HACLA. For 2009, the applicable HACLA rent ranges are shown in Table B-4 on page B-7.

Table B-4
Maximum Section 8 Program Rents in the County of Los Angeles, 2009

# Bedrooms/Unit	0	1	2	3	4
HUD Fair Market Rents	$904	$1,090	$1,361	$1,828	$2,199
104% Payment Standard	$976	$1,177	$1,469	$1,974	$2,374
110% Payment Standard	$994	$1,199	$1,497	$2,010	$2,418
120% Payment Standard	$1,084	$1,308	$1,633	$2,193	$2,638

Source: Housing Authority of the City of Los Angeles, Section 8 Administrative Plan, Appendix 4, October 2009.
Prepared by: HR&A Advisors, Inc.

The calculation of the maximum amount that a household is permitted to spend for owned housing is subject to even more calculation variables, based on the specific housing cost items included in the formula, and assumptions about mortgage rates and buyer down payment. Table B-5 presents the schedule for 2009 utilized by CRA/LA.[7]

Table B-5
Maximum Affordable Housing Costs for Ownership Housing,[1]
County of Los Angeles, 2009

# Bedrooms/Unit		0	1	2	3	4
Income Category	% x Area Median Income[2]					
Very Low	50%	$543	$621	$699	$776	$838
Lower	70%	$761	$869	$978	$1,087	$1,174
Moderate	110%	$1,395	$1,594	$1,793	$1,992	$2,152

[1] Includes costs for motrgage principal and interest, utilities, property tax, property insurance and homeowners' association fees.
[2] Most public funding programs for affordable housing apply primarily to household incomes in these income categories.

Sources: Los Angeles County Dept. of Regional Planning; CRA/LA.
Prepared by: HR&A Advisors, Inc.

[7] *The CRA/LA uses the Los Angeles County Regional Planning Department's method of calculating the maximum affordable housing costs for ownership housing pursuant to federal and State Guidelines.*

c. Housing Supply Characteristics in the Nexus Study Area

(1) Overview

According to Department of City Planning estimates,[8] there were 24,626 total housing units and 22,881 total occupied units, or households, in the Nexus Study Area as of 2008. These estimates correspond closely to an estimate of 24,013 households in 2009 based on the SCAG 2008 Regional Growth Forecast, and a Claritas estimate of 24,875 total units and 23,329 occupied units.

Table B-6 on page B-9 compares basic characteristics of the Nexus Study Area housing stock with the housing stock in the City as a whole. Table B-6 shows that the Nexus Study Area has a much higher concentration of renter-occupied units than in the City, a much higher proportion of its units in multi-family structures of two or more units, and higher vacancy rates. Median home prices and median rents are both lower in the Nexus Study Area than in the City as a whole, and median household income is much lower in the Nexus Study Area.

Another important characteristic of the Nexus Study Area housing stock is its age, which is generally old. Approximately 30 percent of units were constructed prior to 1940. This is consistent with the fact that this area is one of the oldest neighborhoods in the city. The northern portion of the Nexus Study Area is covered by a City of Los Angeles Historic Preservation Overlay Zone.

Housing overcrowding is another characteristic of the Nexus Study Area. In 2000, over one-third (39.1%) of owner-occupied units reported more than 1.5 persons per room in the dwelling units, which is the Census Bureau's threshold for defining "severely overcrowded." The situation was more extreme for renter-occupied units, in which over two-thirds (70.0%) of renter households were classified as severely overcrowded.

[8] *2008 estimates for the sum of census tracts comprising the Local Community Area (available on-line at: http://cityplanning.lacity.org/DRU/Locl/LocRpt.cfm?geo=CP&sgo=CT).*

Table B-6
Housing Characteristics in the City of Los Angeles and the Nexus Study Area, Years 1990, 2000 and 2008

Characteristic	City of Los Angeles						Nexus Study Area					
	1990[1]		2000[1]		2008[2]		1990[1]		2000[1]		2008[3]	
	#	%	#	%	#	%	#	%	#	%	#	%
Total Units	1,298,576		1,338,778		1,369,226		25,435		24,197		24,626	
Occupied Units	1,216,068		1,276,435		1,280,535		22,938		22,473		22,881	
Owner-Occupied	478,769	39.4%	492,773	38.6%	494,850	38.6%	3,461	15.1%	3,648	16.2%	4,789	20.9%
Renter-Occupied	737,299	60.6%	783,662	61.4%	785,685	61.4%	19,476	84.9%	18,825	83.8%	18,092	79.1%
Vacancy Rate	4.8%		3.2%		6.5%		6.5%		5.0%		7.1%	
Units in Structure												
SF Detached	508,202	39.1%	525,426	39.2%	539,228	39.4%	5,022	19.7%	4,972	20.5%	N/A	N/A
SF Attached	76,375	5.9%	87,837	6.6%	85,967	6.3%	1,998	7.9%	2,172	9.0%	N/A	N/A
MF 2-4 Units	125,380	9.7%	129,085	9.6%	120,579	8.8%	5,532	21.7%	5,349	22.1%	N/A	N/A
MF 5+ Units	565,552	43.6%	586,940	43.8%	613,033	44.8%	12,485	49.1%	11,653	48.2%	N/A	N/A
Mobile Home/Other	23,062	1.8%	9,490	0.7%	10,419	0.8%	398	1.6%	51	0.2%	N/A	N/A
Median Price[4]	$ 203,550		$ 221,600		$ 574,300		$ 132,500		$ 158,900		$ 308,000	
Median Monthly Rent[5]	$ 603		$ 672		$ 1,056		$ 454		$ 529		$ 950	
Median Hhld. Income[6]	$ 29,419		$ 36,687		$ 48,882		$ 17,074		$ 19,397		$ 23,423	

[1] From 1990 and 2000 U.S. Census, per Geolytics Neighborhood Change Database, for City of LA as a whole and for the Nexus Study Area, based on census tracts that define its boundaries.

[2] 2008 American Community Survey (available at: http://censtats.census.gov/cgi-bin/pct/pctProfile.pl).

[3] Department of City Planning estimates for the Local Area based on the sum of values for the census tracts that approximate the Nexus Study Area (available at: http://cityplanning.lacity.org/DRU/Locl/LocRpt.cfm?geo=CP&sgo=CT

[4] Median prices per 1990 and 2000 U.S. Census; 2008 County per American Community Survey and 2008 Nexus Study Area per DataQuick, using ZIP Code 90037 as a proxy.

[5] Median rents per 1990 and 2000 U.S. Census; 2008 County per American Community Survey and 2008 Nexus Study Area per REIS annual average for all units in the South/Central LA submarket.

[6] Median household income per 1990 and 2000 U.S. Census; 2008 County per American Community Survey and 2008 Nexus Study Area per Claritas.

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For the Nexus Study Area, it is estimated, based on the 2008 SCAG Regional Growth Forecast, that there are 24,013 total households in 2009.[9] By 2030, the SCAG forecast implies an increase to 28,820 households, or 2009-2030 growth of 4,807 additional households (+20.0%).[10] This forecast is shown in Table B-7. As discussed in the Draft EIR, the Nexus Study Area forecast is provided for informational purposes, but it has no official growth policy status with the City or SCAG.

Table B-7
Households Forecast for
the Nexus Study Area, 2005-2030

Projection Year	Households
2005[1]	22,965
2009[2]	24,013
2010[1]	24,274
2020[1]	26,821
2030[1]	28,820
Change 2005-2009	
# Households	1,048
% Change	4.56%
Change 2009-2030	
# Households	4,807
% Change	20.02%

[1] Based on sum of census tract values in the SCAG regional growth forecast adopted with the 2008 Regional Transportation Plan Update (available at: http://www.scag.ca.gov/forecast/index.htm) for the census tracts that approximate the Local Community Area.

[2] Based on a straight-line interpolation between 2005 and 2010 SCAG regional growth forecast values for the census tracts that approximate the Local Community Area.

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[9] *As noted above, the Claritas households/occupied units estimate for the Nexus Study Area is 23,329. This estimate, rather than the SCAG estimate, is used in analysis presented in the Project Impacts section, because the Claritas data also provide an internally consistent breakdown of households by occupancy category, which is not available from the SCAG forecast. The Claritas households estimate is considered reasonable because: (1) it is close to a 2009 estimate interpolated from the SCAG 2008 RTP Regional Growth Forecast and an estimate for 2008 based on City Planning Department estimates by census tract; and (2) it is based on a well-developed methodology for aging the 2000 census data.*

[10] *Source: SCAG 2008 RTP Regional Growth Forecast, for the household forecast values for the group of census tracts that correspond to the boundaries of the Nexus Study Area.*

(2) Rental Housing Supply Characteristics in the Nexus Study Area

As noted above in Table B-6, there were approximately 18,092 renter-occupied units in the Nexus Study Area as of 2008. This represents a decline of 733 such units since 2000, and a decline of 1,384 since 1990.

As also noted above, renter-occupied units tend to have lower median rents than in the City as a whole, are concentrated more heavily in older buildings, and are more overcrowded. Renter-occupied households in the Nexus Study Area also reported paying a larger share of their incomes for housing costs than was the case for households in both the City and County in 2000, according to U.S. census data for that year.

According to the 2000 U.S. Census, rents in the Nexus Study Area were distributed as shown in Table B-8. Approximately 9,417 units rented at prices below the median ($529) for the Nexus Study Area in that year. Comparable data for 2008 are not available for the Nexus Study Area.

Table B-8
Distribution of Rents in Renter Occupied Dwelling Units, Nexus Study Area, 2000

Gross Rent	# Units	% of Units
< $250	1,509	8.2%
$250-$349	1,244	6.7%
$350-$449	2,626	14.2%
$450-$549	4,038	21.9%
Median Rent = $529		
$550-$649	3,257	17.6%
$650-$749	2,251	12.2%
$750+	3,530	19.1%
Total[1]	18,455	100.0%

[1] The total in this table differs from the renter-occupied units total in Table 6, because this table includes only units in which rents were rported.

Source: 2000 U.S. Census, per Geolytics Neighborhood Change Database
Prepared by: HR&A Advisors, Inc.

As of the first quarter of 2009, average monthly rent for a two bedroom apartment in the Nexus Study Area as a whole was about $1,081, which was lower than the County average of $1,683.[11] But both averages represent a significant increase since 2000.

For all the reasons discussed above, it is not possible with available data to quantify the number of existing rental units in the Nexus Study Area that meet the strict definitions of "affordable" housing units (i.e., no available data correlation between household income for occupied rental units and either household size or number of bedrooms per unit; and a variety of rent levels used to define "affordable" rent). However, indicators of the scale of the supply of such housing include the number of units in the lowest rent and price bands (as noted in Table B-8 above), the number of units that are subject to the City's system of rent stabilization, and the number of units that have various forms of public financing subsidy.

Under the City's Systematic Code Enforcement Program (SCEP), staff from the Los Angeles Housing Department inspect rental properties and identify habitability problems which fall under Section 1941.1 of the California Civil Code, the State's Uniform Housing Code and the Los Angeles Municipal Code. According to data for buildings located in the Nexus Study Area from inspections that were conducted in 2008, there were 1,333 violations noted, which account for 2.1 percent of all violations in the City. The largest incidence of violations were in the "maintenance" category (381), followed by "plumbing" (224) and "fire safety" (187), all of which also accounted for about two percent of Citywide violations. On a percentage basis, "unapproved construction" (64), "use or occupancy violations" (27), "weatherproofing" (99), "sanitation" (100), and historical regulations violations (6), were above the overall violations share (2.1 percent) in their respective categories in the City as a whole.

According to data provided by the Los Angeles Housing Department, CRA/LA and HACLA, additional indicators of the scale of the existing supply of affordable rental units in the Nexus Study Area include:

- *Rent-Stabilized Buildings*. Approximately 2,258 residential buildings in the Nexus Study Area are subject to the City's Rent Stabilization Ordinance, although the associated number of units is not known, because the City does not collect that data from owners. This number of buildings represents a slightly higher percentage of all buildings in the Nexus Study Area (11.4%), than in the City as a whole (10.0%).

[11] *Per proprietary market data provided by REIS, using its South/Central LA submarket area as a proxy for the Nexus Study Area.*

- *Buildings With Expiring Affordability Covenants*. CRA/LA reports that there are 1,354 units in 24 developments in the Nexus Study Area that were financed with Federal or other public funds, all of which are facing expiration of these subsidies and possible conversion to market rate housing at some point in the future.

- *Other Low- and Moderate-Income Housing*. HACLA reports that there are approximately 864 units of publicly subsidized rental housing in 12 developments, in addition to those in the CRA/LA inventory, that are located in ZIP Codes 90007 and 90037, which approximate the boundaries of the Nexus Study Area.

- *Units With Section 8 Assistance.* HACLA also reports that there are about 1,000 units in the Nexus Study Area whose tenants hold a Section 8 voucher or some other form of Section 8 rental subsidy.

USC-Owned and USC-Affiliated Rental Housing Supply in the Nexus Study Area

As discussed in the Project's Draft EIR, USC residence halls and suites with various room configurations currently accommodate 4,677 undergraduate students when fully occupied, as shown in Table B-9. These include 257 units with 594 beds in apartments, plus 1,101 rooms with 2,921 beds in residence halls and suites, directly on the campus, and another 390 units with 1,162 beds located in the Project's Subarea 3 (i.e., University Village).[12] These units and rooms accommodate 29.2 percent of undergraduate students. None of these units provides housing for graduate students or faculty or staff.

Table B-9
USC-Owned & Affiliated Undergraduate Student Housing
in the Project Site, 2009

	Units	Student Beds	Students per Unit
Apartments[1,2]			
On-Campus	257	594	2.31
Project Subarea #3	390	1,162	2.98
Subtotal Apartments	647	1,756	2.71
Residence Halls & Suites[1,2]	1,101	2,921	2.65
Total	**1,748**	**4,677**	**2.68**

[1] See Draft EIR, Appendix J for details.

[2] Includes units at Honors House and University Village, which are located "off-campus," but within the Project Site.

Prepared by: HR&A Advisors, Inc.

[12] *See Draft EIR Appendix J for the details of all USC-owned and USC-affiliated housing supply.*

Student housing costs average about $800 per bed. USC provides a range of financial assistance to undergraduate students, including assistance for on-campus housing costs. USC administers one of the largest financial aid programs in the United States. USC has made a long-standing commitment to meeting 100 percent of the USC-determined financial need for undergraduates who satisfy all eligibility requirements and meet all deadlines. Financial aid consists of grants and scholarships, loans, and federal work-study. In the 2009 academic year the university's office of financial aid administered a total of $382.8 million in financial aid which is designed to defray the total cost of a USC education, including housing.[13]

Grants and scholarships (and fellowships, for graduate students) are types of financial aid that do not have to repaid. Sources for grants and scholarships include federal and state governments, the university, academic departments and professional schools, community and civic groups, and private industry. Grants are need-based, awarded to U.S. citizens and eligible non-citizens on the basis of student and parent assets and income. Scholarships are merit-based, awarded to students with special achievements, distinctions, or other qualifications.

Within the Nexus Study Area, another 3,785 beds for undergraduate and graduate students are either owned by USC or by entities affiliated with USC (see Table B-10). These facilities accommodate another 19.9 percent of undergraduate students and 2.7 percent of graduate students.

Table B-10
USC-Owned & Affiliated Undergraduate & Graduate Student Housing in the Nexus Study Area, 2009

	Units	Student Beds	Students per Unit
Apartments[1]			
Undergraduates	649	1,880	2.90
Graduates	286	405	1.42
Subtotal Apartments	935	2,285	2.44
Greek Housing[2]	N/A	1,300	
Radisson Hotel[2]	N/A	200	
Total	**935**	**3,785**	

[1] See Draft EIR, Appendix J for details.

[2] Per USC. Assumed to house undergraduates only.

Prepared by: HR&A Advisors, Inc.

[13] *Source: http://www.usc.edu/admission/fa/.*

A study of student housing quality was prepared in September of 2007 by Enterprise Community Partners,[14] a national nonprofit housing developer, at the request of USC. In preparing this study Enterprise conducted interviews, surveys, focus groups, community meetings and met with an advisory board of local community-based organizations who serve populations in the University Park area.

Based on student responses to a non-scientific survey, Enterprise found that only six percent of students listed the physical condition of USC housing as "poor," and almost 90 percent said that the housing was "well maintained."[15] In addition, based on block-by-block direct observation by Enterprise staff using a set of housing quality rating criteria, the report concludes that there were significant discrepancies in the quality of larger multi-unit (five or more units per building) housing in the private market surrounding USC based on whether it was occupied by students or other members of the community. The research rated 33 percent of student-occupied buildings as "high quality" compared to only 11 percent for non-student-occupied buildings, and conversely, that only four percent of student-occupied buildings were rated as "poor," compared with 38 percent of non-student-occupied buildings. On the whole, the report found that the quality of private market housing available to the non-student community was generally poor, and more expensive, due to a preference by some landlords to favor students as tenants over non-students.[16]

(3) For-Sale Housing Supply Characteristics in the Nexus Study Area

As also noted in Table B-6, there were 4,789 units of for-sale housing in the Nexus Study Area in 2008, compared with 3,648 in 2000 and 3,461 in 1990.

According to the 2000 U.S. Census, for-sale housing values in the Nexus Study Area were distributed as shown in Table B-11 on page B-16. As indicated by adding the unit counts in Table B-11, approximately 1,785 units, or approximately 63 percent of units, had values below the median ($158,900) for the Nexus Study Area in that year. Comparable data for 2008 are not available for the Nexus Study Area.

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[14] *Enterprise, University Park Housing Study, September 2007, prepared for USC.*

[15] *Id., at p. 1.*

[16] *Id., pp. 14-16 and 31.*

Table B-11
Distribution of Values for Owner-Occupied Dwelling Units, Nexus Study Area, 2000

Housing Value	# Units	% of Units
< $100,000	262	9.2%
$100,000-$124,999	249	8.8%
$125000-$149,999	685	24.1%
$150,000-$174,999	589	20.7%
Median Value = $158,900		
$175,000-$199,999	537	18.9%
$200,000-$249,999	279	9.8%
$250,000+	244	8.6%
Total	2,845	100.0%

Source: 2000 U.S. Census, per Geolytics Neighborhood Change Database
Prepared by: HR&A Advisors, Inc.

Like the Los Angeles market as a whole, for-sale housing prices in the Nexus Study Area increased significantly between 2000 and 2007, when the market peaked. Since the onset of the current recession, median housing prices in the Nexus Study Area have declined at about the same rate as the median for the County as a whole.[17] The 2009 median sales price for single family housing in the Nexus Study Area was $179,000, or $129 per square foot, both of which were much lower than the 2009 Countywide medians of $315,000 and $226 per square foot.[18] Like renter households, owner-occupied households in the Nexus Study Area reported paying a larger share of their incomes for housing costs than was the case for households in both the City and County in 2000, according to U.S. census data for that year.

For all the reasons discussed above, it is not possible with available data to quantify the number of existing for-sale housing units in the Nexus Study Area that meet the strict definitions of "affordable" housing units. Indicators of the scale of the supply of such housing include the number of units in the lowest price bands (as noted in Table B-11, above). No data are available from local public agencies about the number of for-sale housing in the Nexus Study Area that are subject to some form of restriction on price so that the units remain affordable to low- and moderate-income households.

[17] *Per HR&A analysis of closed sale transactions using RealQuest Professional software and Los Angeles County Assessor data, as discussed in the Project's Draft EIR, Appendix J.*

[18] *Per DataQuick, using sales in ZIP Code 90037 as a proxy for the Nexus Study Area (available on-line at: http://www.dqnews.com/Charts/Annual-Charts/LA-Times-Charts/ZIPLAT09.aspx).*

(4) Recent Changes in City Development Regulations to Encourage New Housing Supply in the Vicinity of the Nexus Study Area

In recent years the City has enacted three changes in development regulations with the general intent of expanding the housing supply, including the supply of affordable housing, in the general vicinity of the Nexus Study Area. The changes are summarized below.

- *Neighborhood Stabilization Overlay District*. On August 11, 2006, the Los Angeles City Council established the Neighborhood Stabilization Overlay District, bounded by the Santa Monica Freeway (I-10) to the north, Harbor Freeway (I-110) to the east, Martin Luther King Jr. Boulevard to the south and Normandie Avenue to the west.

The intent of the Neighborhood Stabilization Overlay District was to address the impacts of multi-bedroom projects (both single-family and multi-family) which were being developed in the neighborhoods surrounding USC in response to increased student housing demand. These housing developments affected the local community by creating street parking shortages and compatibility issues with historic structures. Although most of these residential developments were built to meet the parking requirements of two parking spaces per dwelling unit with three or more bedrooms, the students renting these units would at times double or triple up, causing six students with six cars to be housed in a three bedroom unit, resulting in extreme shortages in street parking and/or a degradation to existing historic structures.

As a result the Neighborhood Stabilization Overlay District was formed in the aforementioned area and requires that future projects provide one additional parking space for every habitable room at or above 5 habitable rooms per unit. Furthermore, the Zoning Administrator shall make the following findings: 1) that the project provides adequate on-site parking for the proposed number of habitable rooms based upon the above standard, 2) that there is not a detrimental concentration of incompatible campus serving housing within the Neighborhood Stabilization Overlay District, and 3) that the project conforms with any applicable Historic Preservation Overlay Zone or Specific Plan.

- *Figueroa Street Corridor General Plan Amendment.* On March 20, 2007, the Los Angeles City Council adopted a General Plan Amendment (GPA) which added a footnote to both the South and Southeast Community Plans to allow for an increase in density along both sides of Figueroa Street and the west side of Flower Street from the Santa Monica Freeway (I-10) to the north to Martin Luther King Jr. Boulevard to the south.

The purpose of this General Plan Amendment was to encourage more intense mixed-use development in transit-oriented corridors such as the Figueroa Street Corridor.

The primary objective of the GPA is to encourage patterns of development that can accommodate housing demand, while simultaneously reducing automobile dependency and increasing walkable communities.

The General Plan Amendment specifically notes that commercial projects along the specified corridors shall be limited to the existing Height District 1 and a 1.5:1 floor area ratio (FAR). However, mixed-use developments may be designated Height District 2D, provided that the City approves the corresponding zone change to establish the Height District 2D, and provided that no such development exceeds a maximum FAR of 3:1. Additional FAR of 1.5:1, for a maximum total FAR of 4.5:1, may be granted for mixed-use projects that: (1) set aside 20 percent of the dwelling units developed in the increment from 3:1 to 4.5:1 FAR for affordable housing; or (2) for projects reserved for and designed primarily to house students and/or students and their families; or (3) for projects approved by the CRA prior to Council approval of the Figueroa Street Corridor General Plan Amendment. If affordable housing is used to attain the additional 1.5:1 FAR, the units must be affordable to very low-, low- and moderate-income households that earn between 30 and 120 percent of Area Median Income (AMI). Finally, any commercial uses proposed in mixed-use projects shall comprise no less than 0.5 and no more than 0.9 FAR.

- *Greater Downtown Housing Incentive Ordinance.* On August 7, 2007, the Los Angeles City Council established the Greater Downtown Housing Incentive Ordinance, which updated the standards for residential development so as to incentivize the production of housing in all residential and commercially planned areas within Community Redevelopment Project Areas generally bounded by the Hollywood Freeway (US-101) to the north, the Harbor Freeway (I-110) and Figueroa Street (south of Adams Boulevard) to the west, Washington Boulevard and Martin Luther King Jr. Boulevard (west of Broadway) to the south, and Alameda Avenue and Grand Avenue (south of 21st Street) to the east. The purpose of the Ordinance was to respond to the City's housing shortage crisis by enabling the production of more housing than would otherwise be permitted in the Downtown area.

The ordinance provides a list of incentives that, to varying degrees, are aimed at producing more housing in the above mentioned area. In R4, RAS4, R5, CR, C2, C4, and C5 zones, the Greater Downtown Housing Incentive Ordinance allows for the following: (1) no yard requirements except as required by the Urban Design Standards and Guidelines, prepared by the Community Redevelopment Agency and approved by the City Planning Commission; (2) for the purposes of calculating the buildable area for residential (including Apartment Hotel or mixed-use) buildings, the buildable area shall be the same as the lot area; (3) the maximum number of dwelling units or guest rooms permitted shall not be limited by the lot area provisions so long as the total floor area utilized by guest rooms does not exceed the total floor area utilized by dwelling units; and (4) there shall be no prescribed percentage of the required open space that must be provided as either common open space or private open space.

In addition to the four incentives listed above, additional floor area incentives are given to any residential building that meets all of the following: (1) five percent of the total number of dwelling units provided for very low income households; and (2) 10 percent of the total number of dwelling units provided for low income households, or 15 percent of the total number of dwelling units provided for moderate income households, or 20 percent of the total number of dwelling units provided for workforce income households; and (3) any dwelling unit or guest room occupied by a household earning less than 50 percent AMI that is demolished shall be replaced on a one-for-one basis within the Community Plan area in which it is located. If a project meets the above requirements, it may be granted one or all of the following: (1) a 35 percent increase in total floor area; (2) the open space normally required shall be reduced by one-half, provided that a fee equivalent to the amount of the relevant Quimby park and recreation fee is paid for all dwelling units; (3) no parking requirements for dwelling units or guest rooms set-aside for households that earn less than 50 percent AMI; and (4) no more than one parking space (including spaces allocated for guest parking) shall be required for each dwelling unit.

- *Density Bonus Ordinance.* On February 20, 2008, the City Council adopted Los Angeles Ordinance No. 179681. This Ordinance No. 179681 implements State density bonus requirements, as set forth in California Government Code Sections 65915-65918, commonly known as SB 1818, which was intended to increase the production of affordable housing. SB 1818 required all cities in California to adopt such an implementing ordinance.

According to the City Planning Commission's report to the City Council,[19] Section 65915 of the State Government Code requires cities to permit increased density for market rate housing projects that include a percentage of the units "set aside" as affordable to certain income groups. In January 2005, SB 1818 took effect, which amended Section 65915 and significantly changed the State's existing density bonus program. Subsequent clean-up language in SB 435 became effective in January 2006. These laws require cities to adopt implementing ordinances for the new program. The new law halved the number of units that were formerly required to be set aside, or restricted as affordable, in order to qualify for a density bonus. Projects may now qualify for a base density bonus of 20% (rather than the previous 25%), and the bonus may be increased to a maximum of 35% if additional affordable units are included. The new law also requires cities to grant up to three "incentives," depending on the percentage of affordable units and the target income group. An incentive is defined in the law as a deviation from any zoning or development regulation, when requested by an applicant. The City must grant the deviations unless it

[19] *Source: City Planning Commission report to the City Council Re: City Planning Case No. 2005-1101-CA (CF# 05-1345), dated January 30, 2007.*

can make one of three findings: 1) the incentive is not required in order to provide for affordable housing costs or rents; 2) the incentive has a specific adverse impact upon health, safety or the physical environment; 3) the incentive has an adverse impact on any real property that is listed in the California Register of Historical Resources.

City Ordinance No. 179681 added Section 12.22A.25 to the Los Angeles Municipal Code, which set up procedures for the City's issuance of density bonus approvals, among other things. The Ordinance features a "Menu of Incentives" that includes deviations from the Zoning Code typically requested by housing developers. At the same time, the Ordinance limits the extent of the deviation requests by steering project applicants to a defined menu. Applicants can request incentives not on the Menu, but the process and notice requirements are more extensive for these requests. The Ordinance seeks to implement the State law in a way that balances the need for affordable housing and the integrity of local planning and zoning in maintaining livable neighborhoods.

The substantive provisions of Ordinance No. 179681 were taken directly from the State density bonus law, with the exception of two deviations. The first related to for-sale or rental senior citizen housing with low- or very low-income restricted affordable units, and the second concerned for-sale housing with moderate-income restricted units. After the City adopted Ordinance No. 179681, two lawsuits were filed that challenged its adoption. The court upheld Ordinance No. 179681 except for the two deviations that had been made to the State density bonus law. The court invalidated the two deviations from the State law because the City had not conducted adequate CEQA review for them, and ordered the City to rescind these deviations from its Code.[20] On April 9, 2010, the City Council amended Ordinance No. 179681 by deleting the provision related to for-sale and senior housing in its entirety. The provision related to for-sale housing with moderate-income restricted units was amended so that those provisions are exactly the same as the comparable provisions in the State Density Bonus Law.

d. Housing Demand Characteristics in the Nexus Study Area

(1) Overview

According to Department of City Planning estimates,[21] there were 86,294 people residing in the Nexus Study Area as of 2008. This estimate corresponds closely to a total

[20] *Source: City Attorney Report No. R10-0072, dated March 16, 2011, and City Council File No. 05-1345.*

[21] *2008 estimates for the sum of census tracts comprising the Nexus Study Area (available on-line at: http://cityplanning.lacity.org/DRU/Locl/LocRpt.cfm?geo=CP&sgo=CT).*

population estimate of 88,312 in 2009 based on the SCAG 2008 Regional Growth Forecast (discussed below), and a Claritas estimate of 84,481 for 2009.

Table B-12 on page B-22 compares basic characteristics of the Nexus Study Area population in 1990 and 2000 with that of the City, according to the decennial U.S. census in each year. More recent data for the City are from the 2008 American Community Survey, and for the Nexus Study Area, the data are based on Claritas estimates for 2009. These data show that the Nexus Study Area in 2009, as compared with the City as a whole, has: (1) a much higher population density (2.3 times the Citywide density); (2) a higher proportion of "group quarters" population, consistent with the census classification for certain USC housing resources (e.g., dormitories); (3) a much younger age profile (current median age of 25.9 years versus 34.1 years in the City); (4) a slightly higher proportion of family households; (5) larger average household sizes (3.34 vs. 2.90 in the City); (6) a higher, and growing proportion of Hispanic households (currently 65% vs. 49% in the City); and (7) lower household, family and per-capita incomes.

It is estimated, based on the SCAG Regional Growth Forecast, that the Nexus Study Area population will increase to 96,045 persons, from 88,312 persons in 2009, or 7,733 additional persons (+8.8%) from 2009 to 2030, as shown in Table B-13 on page B-23.[22]

(2) USC Housing Demand in the Nexus Study Area

As discussed above, the Project Site currently includes 1,748 housing units, including apartments, residence halls and sites, which altogether house 4,677 undergraduate students at full occupancy, but no graduate students, faculty or staff.

The estimated number of additional undergraduate and graduate students who reside within the Nexus Study Area in private market housing is based on the following: (1) a known percentages of undergraduate and graduate students who reside in the Nexus Study Area, but <u>not</u> in USC-owned or affiliated housing; and (2) the number of students who <u>do</u> reside in USC-owned and affiliated housing.

[22] *Based on the sum of SCAG population forecast values for the tracts that correspond to the Nexus Study Area.*

Table B-12
Population Characteristics in the City of Los Angeles, 1990, 2000 & 2008
and the Nexus Study Area, 1990, 2000 & 2009

Characteristic	City of Los Angeles						Nexus Study Area					
	1990[1]		2000[1]		2008[2]		1990[1]		2000[1]		2009[3]	
	#	%	#	%	#	%	#	%	#	%	#	%
Total Population	3,485,398		3,694,820		3,803,383		85,154		81,175		84,481	
Population/Square Mile	7,196		7,629		7,853		18,593		17,724		18,446	
Household Population	3,412,586	97.9%	3,612,223	97.8%	N/A		N/A		N/A		78,031	92.4%
Group Quarters Population	72,812	2.1%	82,597	2.2%	N/A		N/A		N/A		6,450	7.6%
Age Ranges												
Under 5 Years	282,358	8.1%	285,976	7.7%	287,884	7.6%	8,316	9.8%	6,933	8.5%	6,854	8.1%
5-19 Years	641,517	18.4%	805,073	21.8%	772,538	20.3%	22,228	26.1%	22,727	28.0%	15,507	18.4%
20-34 Years	1,065,250	30.6%	974,004	26.4%	893,253	23.5%	30,582	35.9%	26,490	32.6%	21,474	25.4%
35-54 Years	844,794	24.2%	1,013,010	27.4%	1,097,931	28.9%	15,411	18.1%	16,805	20.7%	20,336	24.1%
55+ Years	651,479	18.7%	616,757	16.7%	751,777	19.8%	8,617	10.1%	8,220	10.1%	10,465	12.4%
Median Age (years)	N/A		31.6		34.1						25.9	
All Households	1,217,405		1,275,412		1,280,535		23,018		22,493		23,329	
Family Households	759,089	62.4%	798,719	62.6%	780,410	60.9%	15,212	66.1%	14,454	64.3%	14,828	63.6%
Non-Family Households	458,316	37.6%	476,693	37.4%	500,125	39.1%	7,806	33.9%	8,039	35.7%	8,501	36.4%
Average Household Size	2.80		2.83		2.90		3.50		3.33		3.34	
Average Family Size	N/A		3.56		3.71		N/A		N/A		N/A	
Hispanic	1,391,411	39.9%	1,719,073	46.5%	1,867,861	49.1%	52,232	61.3%	51,425	63.4%	54,680	64.7%
Non-Hispanic	2,093,987	60.1%	1,975,747	53.5%	1,935,522	50.9%	32,922	40.6%	29,750	36.6%	29,801	35.3%
Median Household Income	$30,925		$36,687		$48,882		$18,500		$19,397		$23,423	
Median Family Income	$34,364		$39,942		$53,577		N/A		N/A		$28,582	
Per Capita Income	$16,188		$20,671		$28,071		N/A		N/A		$10,090	
Persons in Poverty	643,809	18.9%	801,050	22.1%	N/A	19.4%	N/A		N/A		N/A	N/A

[1] 1990 and 2000 U.S. Census, per Geolytics Neighborhood Change Database, for City of LA as a whole and for the Nexus Study Area, based on census tracts that define its boundaries.

[2] 2008 American Community Survey 1-Year Estimates (available on-line at: http://www.census.gov/acs/www).

[3] Claritas.

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Table B-13
Population Forecast for
the Nexus Study Area, 2005-2030

Projection Year	Population
2005[1]	86,284
2009[2]	88,312
2010[1]	88,821
2020[1]	92,523
2030[1]	96,045
Change 2005-2009	
# Households	2,028
% Change	2.35%
Change 2009-2030	
# Households	7,733
% Change	8.76%

[1] Based on sum of census tract values in the SCAG regional growth forecast adopted with the 2008 Regional Transportation Plan Update (available at: http://www.scag.ca.gov/forecast/index.htm) for the census tracts that approximate the Local Community Area.

[2] Based on a straight-line interpolation between 2005 and 2010 SCAG regional growth forecast values for the census tracts that approximate the Local Community Area.

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According to the 2006 USC Housing Study,[23] 70.2 percent of undergraduates who do not reside in USC-owned or affiliated housing reside within ZIP codes 90007 and 90037.[24] These two ZIP codes are very close to the boundaries of the Nexus Study Area.[25] This factor, in combination with the number of undergraduates accommodated in USC-owned and affiliated housing, as discussed above, produces a total of 5,592 undergraduate students who reside in the Nexus Study Area. Assuming they reside in households with the average size of USC-owned and affiliated housing (i.e., 2.90 persons

[23] *Godbe Research, Housing Demand Study: Surveys of Undergraduate and Graduate Students, conducted for USC, June 2006. (Hereinafter referred to as "2006 USC Housing Study"). The study is based on a scientific random sample of students to which statistical "weights" were applied so that the results can be used to characterize all undergraduate students and all graduate students at the University Park Campus. The specific data from this study that are applicable to the Nexus Study Area estimates and projections are discussed below.*

[24] *According to the 2006 USC Housing Study, at p. 19, 70% of undergraduate students not living in USC-owned or affiliated housing reside in ZIP Code 90007. According to unpublished data cross-tabulations provided to HR&A by the Study's authors, another 0.2% resides in ZIP Code 90037.*

[25] *ZIP Code 90037 extends to Slauson Avenue, which is further south than Vernon Avenue, the southern boundary of the Local Community Area.*

per unit, per Table B-14 on page B-24), this translates to 1,928 units of housing, as shown in Table B-14.

Table B-14
Derivation of Undergraduate Students Residing in Private Housing in the Nexus Study Area, 2009

Calculation Factors	Calculations
Undergraduate Students, 2009[1]	16,023
Less: Beds in Project Site[2]	(4,677)
Less: Beds in USC-Owned & Affiliated Apartments in the Nexus Study Area[3]	(1,880)
Less: Beds in Greek Housing[3]	(1,300)
Less: Beds in Radisson Hotel[3]	(200)
Remainder	7,966
Percentage of Students Residing in the Nexus Study Area[4]	70.2%
Number of Undergrad Student Beds in the Nexus Study Area	5,592
Average Students Per Unit[3]	2.90
Estimated Number of Student-Occupied Units	1,928

[1] Per Draft EIR Project Description.
[2] Per Table 9.
[3] Per Table 10.
[4] Per 2006 USC Housing Study, *op. cit.*

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Also according to the 2006 USC Housing Study, 20.3 percent of graduate students who do not reside in USC-owned or affiliated housing reside within ZIP codes 90007 and 90037.[26] This factor, in combination with the number of graduate students accommodated in USC-owned and affiliated housing, as discussed above, produces a total of 2,923 graduate students who reside in the Nexus Study Area. Assuming they reside in households with the average size of USC-owned and affiliated graduate student housing (i.e., 1.42 persons per unit, per Table B-10), this translates to 2,058 units of housing, as shown in Table B-15 on page B-25.

[26] *According to the 2006 USC Housing Study, at p. 54, 20% of graduate students not living in USC-owned or affiliated housing reside in ZIP Code 90007. According to unpublished data cross-tabulations provided to HR&A by the Study's authors, another 0.3% resides in ZIP Code 90037.*

Table B-15
Derivation of Graduate Students Residing
in Private Housing in the Nexus Study Area, 2009

Calculation Factors	Calculations
Graduates Students, 2009[1]	14,805
Less: Beds in the Project Site	-
Less: Beds in USC-Owned & Affiliated Apartments in the Nexus Study Area[2]	(405)
Less: Beds in Greek Housing	-
Less: Beds in Radisson Hotel	-
Remainder	14,400
Percentage of Students Residing in the Nexus Study Area[3]	20.3%
Number of Grad Student Beds in the Nexus Study Area	2,923
Average Students Per Unit[3]	1.42
Estimated Number of Student-Occupied Units	2,058

[1] Per Draft EIR Project Description.
[2] Per Table 13.
[3] Per 2006 USC Housing Study, *op. cit.*

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Review of home address ZIP Codes included in proprietary payroll records for faculty and staff that were provided to HR&A by USC for use in preparing the Draft EIR indicate that 4.25 percent reside in ZIP Codes 90007 and 90037. Multiplying this factor by the sum of 1,732 faculty and 5,716 staff yields an estimate that 317 faculty and staff reside within the Nexus Study Area, assuming conservatively, that these are all separate households. It is also assumed that, given the preponderance of rental units in the Nexus Study Area, all such faculty and staff reside in rented housing.

Table B-16 on page B-26 presents a summary of the USC-related housing demand and supply for 2009. It shows that the 4,677 USC-owned beds in the Project Area account for 12.2% of the USC housing demand in 2009. Another 12,617 beds (33.0% of demand) are located in the Nexus Study Area, including 8,832 beds in privately owned, non-USC buildings (or 4,303 rental units). The remainder of 20,982 persons (44.9% of student demand; 54.8% of total demand), by definition, reside somewhere other than the Project Area and the Nexus Study Area. These relationships are also illustrated in Figure B-1 on page B-27.

Table B-17 on page B-27 translates student "beds" and faculty and staff into rental units and shows that the estimated number of units occupied by USC students, faculty and staff in the Nexus Study Area represents about 23.1 percent of its rental housing supply. These students, faculty and staff also represent 14.9 percent of the population in renter-

Table B-16
USC University Park Student, Faculty & Staff Housing Demand & Supply, by Housing Location, 2009

	Students								Faculty & Staff		Total		
	Undergrads			Grads			Total						
	Units	Beds	Beds %	Units	Beds	Beds %	Units	Beds	Units	Beds	Units	Beds	
Within Project Site[1]													
Residence Halls & Suites	1,101	2,921		-	-		1,101	2,921	-	-	1,101	2,921	
Apartments	647	1,756		-	-		647	1,756	-	-	647	1,756	
Subtotal	1,748	4,677	29.2%	-	-	0.0%	1,748	4,677	-	-	1,748	4,677	12.2%
Within Nexus Study Area, Not Including Project Site[3]													
Greek Housing	N/A	1,300		-	-		-	1,300	-	-	-	1,300	
Radisson Hotel	N/A	200		-	-		-	200	-	-	-	200	
USC-Owned & Affiliated Apts.	649	1,880		286	405		935	2,285	-	-	935	2,285	
Private Market Apts.	1,928	5,592		2,058	2,923		3,986	8,515	317	317	4,303	8,832	
Subtotal	2,577	8,972	56.0%	2,344	3,328	22.5%	4,921	12,300	317	317	5,238	12,617	33.0%
Outside Project & Nexus Study Area[3]	N/A	2,374	14.8%	N/A	11,477	77.5%	N/A	13,851		7,131		20,982	54.8%
Overall Total		16,023	100.0%		14,805	100.0%		30,828		7,448		38,276	100.0%

[1] Per Tables 9 and 10.

[2] Per Tables 14 and 15. For faculty and staff, 7,448 x 4.25% = 317.

[5] Remainder (i.e., total students, faculty and staff minus those in Project Area housing and Nexus Study Area housing.)

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Figure B-1
USC Housing Demand vs. Housing Supply by Location, 2009

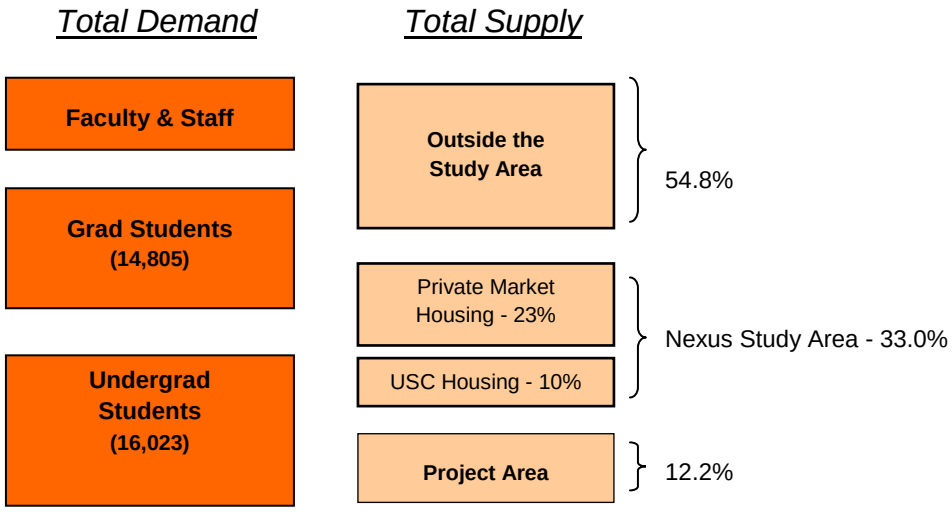

Table B-17
Households & Population in the Nexus Study Area and
USC-Related Shares of the Private Rental Housing Supply & Population, 2009

	2009
Private Market Occupied Rental Units	
Total Occupied Rental Units[1]	19,597
Less: USC-Owned/Affiliated Units[2]	(935)
Subtotal Private Market Rental Units	18,662
Private Market Occupied Rental Units Population	
Total Occupied Rental Units Population[1]	61,691
Less: USC-Owned/Affiliated Units Beds/Population[3]	(2,285)
Subtotal Private Rental Units Population	59,406
Private Market Rental Units Occupied by USC Students, Faculty & Staff[3]	4,303
USC Students, Faculty & Staff Rental Units Population[3]	8,832
USC-Related Share of Private Market Rental Units	23.1%
USC-Related Share of Private Rental Units Population	14.9%

[1] Per Claritas estimate.
[2] From Table 10.
[3] From Table 16.

Prepared by: HR&A Advisors, Inc.

occupied units in the Nexus Study Area, not counting household members who are not part of the USC population.[27]

e. Housing Regulatory Framework

(1) City's General Plan Framework

The City's General Plan Framework Element addresses community development goals, objectives and policies relative to the distribution of land use, both public and private, including housing. The Framework Element's central housing goal is an equitable distribution of housing opportunities by type and cost accessible to all residents of the City. The Framework Element objectives relevant to the Project are:

- 4.1 Plan the capacity for and develop incentives to encourage production of an adequate supply of housing units of various types within each City subregion to meet the projected housing needs by income level of the future population to the year 2010.

- 4.2 Encourage the location of new multi-family housing development to occur in proximity to transit stations, along some transit corridors, and within some high activity areas with adequate transitions and buffers between higher-density developments and surrounding lower-density residential neighborhoods.

- 4.4 Conserve scale and character of residential neighborhoods.

(2) City Housing Element

The Housing Element of the City's General Plan notes that for over 10 years, the City has been pursuing a sustainable approach to accommodating long-range growth.[28] This approach is established in the Framework Element of the General Plan, first adopted in 1995, which encourages sustainable growth in higher-intensity commercial and mixed-use districts, centers and boulevards, and in proximity to transit. The goals and policies of the Framework Element establish a balanced approach to growth by linking it to the land uses and infrastructure that will support the type of infill development that incurs the least

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[27] *As discussed in the Draft EIR, this analysis assumes that undergraduate and graduate students reside alone or with other students, primarily. Since no data are available on the household composition of faculty and staff households, the analysis assumes faculty households are similar in size to the average in units being planned for the Project (i.e., 1.67 persons per unit) and that staff occupy households equal in size to the average for all households in Los Angeles County as of 2008 (i.e., 3.05 persons per unit), per the 2008 American Community Survey 1-Year Estimate.*

[28] *City of Los Angeles Department of City Planning, Housing Element 2006-2014, City of Los Angeles General Plan, adopted August 13, 2008, p. 1 (available on-line at: http://www.cityofla.org/PLN). Hereinafter, "Housing Element."*

economic, environmental and social costs. To target growth strategically, the City is developing Transit Oriented District plans and implementing financial and land use incentives to increase the feasibility of infill development near transit. This includes new zoning categories for residential and mixed-use development near transit stops, incentives to increase housing opportunities in Downtown and zoning to encourage the adaptive reuse of the City's stock of historic office buildings for housing. Through land use planning and financial incentives, the City encourages livable and sustainable neighborhoods that offer a mix of housing at all income levels, jobs, transit and services. The City accomplishes this through infill development strategies which preserve the character of neighborhoods and meet the needs of existing residents as the City continues to grow.

The Housing Element of the City's General Plan identifies four primary goals and associated objectives, policies and programs. The goals are: (1) a City where housing production and preservation result in an adequate supply of ownership and rental housing that is safe, healthy, sanitary and affordable to people of all income levels, races, ages, and suitable for their various needs; (2) a City in which housing helps to create safe, livable and sustainable neighborhoods; (3) a City where there are housing opportunities for all without discrimination; and (4) a City committed to ending and preventing homelessness.[29]

The Housing Element objectives that are relevant to the Project (i.e., other than those that address design and historic preservation, which are addressed in the Draft EIR, or those related to special needs populations, neighborhood preservation, City administrative, financing or other public administrative actions, which do not apply to the Project) are:[30]

- 1.1 Plan the capacity and develop incentives for the production of an adequate supply of rental and ownership housing for households of all income levels and needs.
- 2.2 Promote sustainable neighborhoods that have mixed-income housing, jobs, amenities, services and transit.
- 2.4 Promote livable neighborhoods with a mix of housing types, quality design and a scale and character that respects unique residential neighborhoods in the City.
- 3.1 Assure that housing opportunities are accessible to all residents without discrimination on the basis of race, ancestry, sex, national origin, color, religion,

[29] *Id., pp. 12-14.*

[30] *Id., Chapter 6.*

sexual orientation, marital status, familial status, age, disability (including HIV/AIDS), and student status.

(3) South Los Angeles Community Plan and Southeast Los Angeles Community Plan[31]

The overarching residential goal of the Community Plan is to provide for a safe, secure, and high quality residential environment for all economic, age, and ethnic segments of the community. Specifically, the Community Plan strives to preserve and enhance the positive characteristics of existing residential neighborhoods while providing a variety of compatible new housing opportunities. Community Plan policies provide for preservation of existing residential neighborhoods throughout the area, and retaining existing single-family districts and multi-family clusters. Furthermore, the Community Plan proposes changes in densities for those areas around proposed transit stations and along transit corridors. This would occur as existing properties zoned for multi-family development which contain a mix of densities redevelop and build out to their maximum potential.

Among the policies related to housing, other than design and historic preservation, which are addressed in the Project's EIR, are:

- 1-1.2. Protect existing single-family and low density residential neighborhoods from encroachment by higher density residential and other incompatible uses.
- 1-2.1. Locate higher residential densities near commercial centers, light mass transit stations, and major bus routes where public service facilities, utilities, and topography will accommodate this development.
- 1-5.1 Promote greater individual choice in type, quality, price, and location of housing.
- 1-5.2 Ensure that new housing opportunities minimize displacement of the residents.

(4) Exposition/University Park Redevelopment Project

A portion of the Project is located within CRA/LA's Exposition/University Park Redevelopment Project Area (formerly known as the Hoover Redevelopment Project Area), which encompasses approximately 574 acres of land located just southwest of downtown

[31] *As noted in the Project's Draft EIR, Subarea 1b and Subarea 2 are located in the adjacent Southeast Los Angeles Community Plan area. However, since no housing is planned for these areas, housing policies in the Southeast Los Angeles Community Plan are not addressed in this analysis.*

Los Angeles. The Redevelopment Plan goals call for the elimination of physical, economic, and social blight by encouraging development that promotes a thriving business environment and enhances the surrounding residential community.

Among the Redevelopment Plan's objectives that are related to housing development are:[32]

- To make provisions for housing as is required to satisfy the needs and desires of the various age, income, and ethnic groups of the community, maximizing the opportunity for individual choice.
- To alleviate overcrowded, substandard housing conditions and to promote the development of a sufficient number of housing units for low and moderate income households.

(5) HUD Consolidated Plan

The Consolidated Plan ("Plan") is intended to provide non-profit and for-profit housing, community and economic development providers, City residents and businesses, and public agencies with a comprehensive overview of the City's housing and community development needs, demographics, priorities and strategies, and how the activities will address identified needs and objectives over the next five years.[33] The Plan is the result of the 1992 amendment to the National Affordable Housing Act (NAHA) of 1990. This legislation required that a single Consolidated Plan be submitted to the U.S. Department of Housing and Urban Development (HUD) for funding of all HUD formula grant programs. These four programs are: Community Development Block Grant (CDBG), Home Investment Partnerships (HOME), Housing Opportunities for Persons with AIDS (HOPWA) Grant, and Emergency Shelter Grant (ESGP). In 2004, the American Dream Downpayment Initiative (ADDI) was passed by Congress and signed by the President as the fifth formula HUD Entitlement grant. The Plan replaced the CHAS, or Comprehensive Housing Affordability Strategy, and four separate grant applications. The most recent Plan covers the period 2008-2013. Inasmuch as the Plan covers a range of actions to be taken by the City in addressing affordable housing and community development issues, including plans for the expenditure of Federal funds, rather than actions by private parties like USC, the Plan does not apply to the proposed Project.

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[32] *Exposition/University Park Redevelopment Plan, op. cit.*

[33] *See generally, the City's Community Development Department Website page on this topic (available on-line at: http://cdd.lacity.org/home_report_conplan0813.html).*

(6) Rent Stabilization Ordinance(RSO)

The City's Rent Stabilization Ordinance[34] was adopted in 1979 to protect tenants from excessive rents, while at the same time allowing landlords a reasonable return on their investments.[35] USC's student housing is categorically exempt from the definition of a "rental unit" and therefore the RSO does not apply to new or Project housing for undergraduate or graduate student housing, including sorority and fraternity housing.[36] Project housing for faculty would be exempt because it is post-October 1, 1978 new construction.[37]

(7) Southern California Association of Governments (SCAG) Regional Housing Needs Assessment (RHNA)

The RHNA is a key tool for SCAG and its member governments to plan for growth. The RHNA quantifies the need for housing within each jurisdiction between 2006 and 2014. Communities then plan, consider and decide how they will address this need through the process of completing the housing elements of their general plans. The RHNA does not necessarily encourage or promote growth, but rather allows communities to anticipate growth, so that they can grow in ways that enhance quality of life, and improve access to jobs, transportation and housing, without adversely impacting the environment. The RHNA is produced periodically by SCAG, as mandated by State law, to coincide with the region's schedule for preparing housing elements. It consists of two measurements of housing need: (a) existing need; and (b) future need.

The existing need assessment is based on data from the most recent U.S. Census to measure ways in which the housing market is not meeting the needs of current residents. These variables include the number of low-income households paying more than 30 percent of their income for housing, as well as severe overcrowding.

The future need for housing is determined primarily by the forecasted growth in households in a community, based on historical growth patterns, job creation, household formation rates, and other factors to estimate how many households will be added to each community over the projection period. The housing need for new households is then adjusted to account for an ideal level of vacancy needed to promote housing choice, maintain price competition and encourage acceptable levels of housing upkeep and repair.

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[34] *Los Angeles Municipal Code, Chapter XV, commencing with Sec. 151.01.*

[35] *See generally, Los Angeles Housing Department information about the RSO (available on-line at: http://lahd.lacity.org/lahdinternet/RentStabilization/tabid/247/Default.aspx).*

[36] *LAMC Sec. 151.02, definition of "rental units," subparagraph 4.*

[37] *Id., subparagraph 6.*

The RHNA also accounts for units expected to be lost due to demolition, natural disaster, or conversion to non-housing uses. The sum of these factors — household growth, vacancy need and replacement need — form the "construction need" assigned to each community. As noted above, the City of Los Angeles was assigned a RHNA of 112,876 units for the 2006-2014 planning period. There is no process for allocating the Citywide total to City subareas, such as the Nexus Study Area.

Finally, the RHNA considers how each jurisdiction might grow in ways that will decrease the concentration of low income households in certain communities. The need for new housing is distributed among income groups so that each community moves closer to the regional average income distribution.

(8) SCAG Growth Vision Report

The Compass Growth Vision Report ("Vision Report") presents a comprehensive growth vision for the six-county SCAG region, as well as the achievements of the process for developing the growth vision. It details the evolution of the draft vision from the study of emerging growth trends and systematic modeling of the effects of alternative growth pattern scenarios on transportation systems, land consumption, and other factors.

The Vision Report notes that population and household growth trends and existing housing conditions point to an unmet demand for a greater diversity of housing throughout the six-county region.[38] For example, while multi-family units account for a significant proportion of the existing overall supply (about 40 percent), multi-family buildings represent a smaller share of new residential construction. As a result, the demand for such housing (e.g., from immigrant populations, young adults and seniors) is outpacing multi-family production.[39]

(The Project's consistency with the principles of the Compass Growth Vision is addressed in the Land Use and Planning of the Project's Draft EIR.)

(9) SCAG Regional Growth Forecast

As part of its regional planning responsibilities for the six-county metropolitan region under its jurisdiction, SCAG produces and updates a detailed growth forecast of future employment, households and population. The forecasts are provided for various scales of geography, including a system of "subregions." The Project is located within the City of Los

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[38] *Southern California Association of Governments, Southern California Compass Blueprint Growth Vision Report, June 2004, http://www.compassblueprint.org/2percent.*

[39] *Id.*

Angeles Subregion, which includes the City, the City of San Fernando and a number of unincorporated and Federal lands areas.

As shown in Table B-18, SCAG's 2008 Forecast for the City of Los Angeles Subregion included about 1.33 million households[40] in 2005, and the total is estimated to be about 1.37 million in 2009. By 2030, the Subregion is expected to add another 226,306 households (+16.5%), for a total of 1.6 million in that year.

Table B-18
SCAG Households Forecast for
the City of Los Angeles Subregion

Projection Year	Households
2005[1]	1,325,600
2009[2]	1,374,448
2010[1]	1,386,658
2020[1]	1,506,564
2030[1]	1,600,754
Change 2005-2009	
# Households	48,848
% Change	3.68%
Change 2009-2030	
# Households	226,306
% Change	16.47%

[1] SCAG regional growth forecast adopted for the 2008 Regional Transportation Plan Update (available at: http://www.scag.ca.gov/forecast/index.htm).

[2] Based on a straight-line interpolation between 2005 and 2010 values in the SCAG regional growth forecast adopted for the 2008 Regional Transportation Plan Update.

Prepared by: HR&A Advisors, Inc.

f. Project Impacts

The proposed Project includes development of 5,400 beds of new student housing and the demolition of 1,162 beds in existing USC-owned student housing, and the addition of 418 beds of new faculty housing (250 units). In addition, there will be an increase in housing demand from the net increase in students, faculty and staff over the buildout of the Project. As a result, there will be indirect household impacts in the Nexus Study Area and outside the Nexus Study Area.

[40] *SCAG's regional growth forecast utilizes "households," not housing units. As defined by the U. S. Census Bureau, "households" are equivalent to "occupied dwelling units."*

(1) Thresholds of Significance

As discussed in the Draft EIR, the City of Los Angeles CEQA Thresholds Guide states that the determination of significance with regard to impacts on housing shall be made on a case-by-case basis, considering the following factors:

- The degree to which the project would cause growth (i.e., new housing or employment generators) or accelerate development in an undeveloped area that exceeds projected/planned levels for the year of project occupancy/buildout, and that would result in an adverse physical change in the environment;
- Whether the project would introduce unplanned infrastructure that was not previously evaluated in the adopted Community Plan or General Plan;
- The extent to which growth would occur without implementation of the project;
- The current and anticipated housing demand and supply of market rate and affordable housing units in the project area;
- The total number of residential units to be demolished, converted to market rate, or removed through other means as a result of the proposed project, in terms of net loss of market-rate and affordable units;
- The land use and demographic characteristics of the project area and the appropriateness of housing in the area; and
- Whether the Project is consistent with adopted City and regional housing and population policies, such as the Framework and Housing Elements, HUD Consolidated Plan and CHAS policies, redevelopment plans, Rent Stabilization Ordinance, and the Regional Comprehensive Plan and Guide.

Accordingly, the Project's potential housing and population impacts are evaluated in these terms.

(2) Impact Analysis Methodology

The impact analysis presented in the Draft EIR, and summarized below, discusses the households implications of temporary construction jobs generated by the Project and the impacts of the Project's direct households impacts within the Project Site due to new construction of dwelling units for students and faculty. It then compares the number of direct Project households with the SCAG 2008 RTP Regional Growth Forecast for the City of Los Angeles Subregion. Comparisons are also provided to forecasted household growth in the Nexus Study Area, for informational purposes. The number of Project households

and the manner in which they are being planned is then evaluated for consistency with various City and regional growth policies applicable to household growth.

The analysis then estimated the Project's indirect household impacts related to net increases in USC students, faculty and staff within the Nexus Study Area and outside the Nexus Study Area, using estimating factors discussed above for the locational distribution of USC housing demand in 2009, in combination with new student housing being constructed and planned in the Nexus Study Area by private parties other than USC.

(3) Construction-Related Housing Impacts

As discussed in the Draft EIR, the regionally diverse employment patterns of construction workers in southern California, and the locational diversity of demand for their services, means that construction workers are not likely, to any significant degree, to relocate their households as a consequence of the job opportunities presented by the Project. It is reasonable to assume, therefore, that there will not be any significant housing impacts in the Nexus Study Area due to Project construction.

(4) Direct and Indirect Aggregate Housing Impacts

Table B-19 on page B-37 provides a summary of the number of undergraduate and graduate student and faculty beds included in the Project description and their associated number of dwelling units (i.e., households). It shows that the Project's total of 5,400 beds for students, after deducting 1,162 beds to be removed as part of the Project, is equivalent to 2,688 households, based on preliminary design plans being developed for USC. Adding these households to the 250 units of faculty housing included in the Project results in a net total of 2,938 direct Project households.

Table B-19
Derivation of Net Project Households

Occupant Categories	# Beds to be Demo'd[2]	# New Beds[3]	# Net New Beds	Beds/Unit[4]	# Occupied Units/ Households
Undergraduate Students	1,162	2,160	998	3.26	306
Graduate Students	-	3,240	3,240	1.36	2,382
Faculty	-	418	418	1.67	250
Totals	**1,162**	**5,818**	**4,656**		**2,938**

[1] Per Table 9.

[2] Per Draft EIR Project Description.

[3] Assumes 40% of 5,400 beds are for undergraduate students and 60% for graduate students, per USC.

[4] Based on preliminary design plans, per USC.

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Table B-20 presents the number of USC students, faculty and staff in 2009 and 2030, and the net changes over the period of Project buildout, per the Draft EIR Project Description. It shows there will be an overall increase of 6,624 persons (+17.3%), with graduate students (+22.9%) and staff (+22.5%) accounting for the largest shares of the total increase. These numbers represent the total amount and categories of change in USC-related housing demand over the period of Project buildout.

Table B-20
USC University Park Campus Students, Faculty & Staff, 2009 and 2030

	2009		2030		Differences	
Students[1]						
Undergrads	16,023	41.9%	17,800	39.6%	1,777	11.1%
Grads	14,805	38.7%	18,200	40.5%	3,395	22.9%
Subtotal Students	30,828	80.5%	36,000	80.2%	5,172	16.8%
Faculty[1]	1,732	4.5%	1,900	4.2%	168	9.7%
Staff[1]	5,716	14.9%	7,000	15.6%	1,284	22.5%
Totals	**38,276**	**100.0%**	**44,900**	**100.0%**	**6,624**	**17.3%**

[1] Per Draft EIR Project Description.

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Table B-21 on page B-38 compares the net growth in students, faculty and staff between 2009 and 2030, and their implied number of households based on the average household size factors presented above, with the net number of households resulting from development of the Project (2,938). This comparison results in 1,488 households in excess of the number associated with new residential construction included in the Project, which is considered an indirect household impact of the Project.

Table B-21
Derivation of Indirect Project Household Impacts

Occupant Categories	2009-2030 Increase[1]	Beds/ Household[2]	# Households	Less: Project Households[2]	Difference = Indirect Impact
Undergraduate Students	1,777	3.26	545	306	239
Graduate Students	3,395	1.36	2,496	2,382	114
Faculty	168	1.67	101	250	(149)
Staff	1,284	1.00	1,284	-	1,284
Totals	**6,624**		**4,426**	**2,938**	**1,488**

[1] From Table 20.

[2] From Table 19; staff assumed to occupy separate households.

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Table B-22 shows that the additional 4,426 direct and 1,488 indirect Project households represent 15.4 percent of the forecasted number of households in the Nexus Study Area in 2030, and 92.1 percent of the forecasted households growth between 2009 and 2030. Table B-22 also shows that Project households represent about three-tenths of one percent of the forecasted number of households in the City of Los Angeles Subregion in 2030, and about two percent of forecasted household growth between 2009 and 2030. The Project is therefore consistent with the SCAG 2008 Regional Growth Forecast for the City of Los Angeles Subregion.

Table B-22
Project Household Impacts Compared With the SCAG Forecast
for the Nexus Study Area and the City of Los Angeles Subregion

Projection Year	Housing Units/ Households
Nexus Study Area, 2009[1]	24,013
Nexus Study Area, 2030[1]	28,820
Local Area Growth, 2009-2030[1]	4,807
SCAG City of LA Subregion, 2009[2]	1,374,448
SCAG City of LA Subregion, 2030[2]	1,600,754
SCAG City of LA Subregion Growth, 2009-2030[2]	226,306
Project	
Direct Impact[3]	2,938
Indirect Impact[4]	1,488
Total Project Impact	**4,426**
Project Impacts	
Share of Nexus Study Area, 2030	15.36%
Share of Nexus Study Area Growth, 2009-2030	92.07%
Share of City of LA Subregion, 2030	0.28%
Share of City of LA Subregion Growth, 2009-2030	1.96%

[1] From Table 7.

[2] From Table 18.

[3] From Table 19.

[4] From Table 21.

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(5) Locational Implications of Changes in USC-Related Housing Demand and Supply

Even with the additional student and faculty households that will be developed on the USC campus as a result of the Project, most students, faculty and staff will continue to reside in the Nexus Study Area and beyond in other areas of the City and County. Thus, the incremental growth in students, faculty and staff anticipated over the period of Project buildout will also have an indirect effect on housing in those other areas. This section provides an estimate of the net locational implications of the Project's change in housing demand as compared with the projected supply of housing, particularly in the Nexus Study Area. It shows that with the added supply of housing on the USC campus resulting from the Project, plus the addition of currently planned privately developed student housing, fewer rental units in the Nexus Study Area's private housing market will be occupied by USC populations, and there will be a reduction in the percentage of housing demand that will be met outside the Nexus Study Area. This means that more private dwelling units in the Nexus Study Area will be available to non-USC households and less long-distance commuting between home and USC will take place with the Project. The analytic approach used for making these estimates is similar to that presented above for existing conditions in 2009.

The supply of housing in the Nexus Study Area will also be increasing over the period of Project buildout. Table B-23 on page B-40 presents the net change in the number of total occupied dwelling units, and estimates of occupied rental units, and their respective household populations in the Nexus Study Area between 2009 and 2030. This analysis focuses on rental units in the Nexus Study Area, because that is the type of housing most readily available and most often occupied by USC students, faculty and staff in that area. More specifically, it focuses on the private market rental units that are not owned or affiliated with USC, excluding those new privately developed units that are planned specifically for occupancy by students, and are addressed below.

Table B-23
Households & Population in the Nexus Study Area, 2009 & 2030

	2009	2030	2009-2030 Change
Total Households/Occupied Units[1,2]	23,329	28,820	5,491
Total Population[1,2]	84,481	96,045	11,564
Less: Group Quarters Population[3]	(6,450)	(7,328)	(878)
Households Population	78,031	88,717	10,686
Renter Households/Occupied Units[3]	19,597	24,209	4,612
Persons per Household, Renters[4]	3.148	3.148	-
Renter Households/Occupied Units Population	61,691	76,210	14,519
Private Market Occupied Rental Units			
Total Occupied Rental Units (from above)	19,597	24,209	4,612
Less: USC-Owned & Affiliated Units[5]	(935)	(935)	-
Less: New Private Student Housing[6]	-	(862)	(862)
Subtotal Private Market Rental Units	18,662	22,412	3,750

[1] Claritas data for 2009 for an area that matches the boundaries of the Nexus Study Area. Households exclude "group quarters" (e.g., dorms; Greek housing; Radisson Hotel beds for students, per U.S. Census definition).

[2] 2030 households and population based on census tract values in the SCAG 2008 Regional Growth Forecast, *op. cit.*

[3] Assumes same group quarters (7.63%) and renter household (84.0%) shares as in 2009.

[4] Per 2000 U.S. Census data for the Nexus Study Area per Geolytics Neighborhood Change Database.

[5] From Table 10. Assumes no change from 2009.

[6] In six pending developments with 862 units and 3,339 beds; see Table 25 supra.

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Recapping information presented above as to the number of existing Project Site beds for students, and the Project's planned net addition of beds, Table B-24 on page B-41 shows that the Project's 2030 total of 9,333 beds results in a net increase of 4,656 beds over the 2009 supply (+99.6%). Overall in 2030, the net new housing supply within the Project Site will accommodate 24.8 percent of total student demand (versus 15.2% in 2009), 22.0 percent of faculty demand (versus none in 2009), and 20.8 percent of total USC housing demand (versus 12.2% in 2009).

Table B-24
Changes in Project Site Housing Supply vs. Demand, 2030

	2009	2030
Undergraduate Student Beds		
Existing Beds[1]	4,677	4,677
Less: Beds to be Demolished[1]		(1,162)
Net Existing Beds to Remain		3,515
New Beds[2]		2,160
Subtotal Undergraduate Student Beds	4,677	5,675
Number of Undergraduate Students[3]	16,023	17,800
Undergraduate Students Housed in Project Site	29.2%	31.9%
Graduate Student Beds		
Existing Beds[1]	-	-
New Beds[2]		3,240
Subtotal Graduate Student Beds	-	3,240
Number of Graduate Students[1]	14,805	18,200
% Graduate Students Housed in Project Site	0.0%	17.8%
Faculty Beds		
Existing Beds[1]	-	-
New Beds[2]		418
Subtotal Faculty Beds	-	418
Number of Faculty[1]	1,732	1,900
% Faculty Housed in Project Site	0.0%	22.0%
Total Students, Faculty & Staff	38,276	44,900
Total Number of Beds in Project Site	4,677	9,333
% Housed in Project Site	12.2%	20.8%

[1] From Table 9.
[2] From Table 19.
[3] From Table 20.

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At the present time, USC has no plans to construct or remove any existing student housing outside the Project area, including beds available in Greek housing and the Radisson Hotel, and thus the 2030 supply of USC-owned and USC-affiliated housing in the Nexus Study Area is assumed to be the same as in 2009.

The estimate of the number of additional undergraduate and graduate students who will reside within the Nexus Study Area in housing other than what is owned or affiliated with USC, is determined in the same way that the 2009 estimate was derived – i.e., the difference between a known percentage of such students who reside in the Nexus Study Area minus the number who reside in USC-owned and affiliated housing. The 2030 estimate relies on the same 70.2 percent factor for undergraduates who do not reside in

USC-owned or affiliated housing reside within ZIP codes 90007 and 90037, and 20.3 percent for graduate students, as discussed above. As for 2009, these factors are used in combination with the number of students accommodated in USC-owned and affiliated housing, as discussed above, to produce initial estimates of students likely to reside in private market housing in the Nexus Study Area.

One additional factor applies to the 2030 projection: the addition of new housing supply in six private student housing projects planned for the Nexus Study Area. The relevant characteristics of these projects are shown in Table B-25. If all are actually completed as proposed, they will add 3,339 beds in 862 units for undergraduate and graduate students and faculty. In this analysis, we assume conservatively, that all of these units would accommodate USC undergraduate students.[41]

Table B-25
Proposed Private Student Housing Projects

Project Location	# Units	# Beds	Students/ Unit
University Gateway[1]	421	1,656	3.93
Icon Plaza1	56	270	4.82
2455 S. Figueroa[2]	145	532	3.67
2700 S. Figueroa[3]	171	628	3.67
3025 S. Figueroa[4]	39	143	3.67
511 W. 31st[4]	30	110	3.67
Totals	862	3,339	3.87

[1] Per Project Draft EIR related projects list and information provided by USC.

[2] Per Project Draft EIR related projects list and the project's Draft EIR.

[3] Per Project Draft EIR related projects list and assumes same beds/unit ratio as 2455 Figueroa.

[4] Per USC and assumes same beds/unit ratio as 2455 & 2700 Figueroa.

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Table B-26 on page B-43 shows a derivation of the 2,800 beds and 966 units for undergraduates who are projected to reside in private market units in the Nexus Study Area (i.e., not in USC-owned or affiliated housing) in 2030, following the analysis presented above for 2009 as shown in Table B-14, but after taking the new private student housing into account.

[41] *This assumption is considered "conservative" in the sense that it frees up the largest number of dwelling units in the Nexus Study Area's private housing market for non-student households. The actual occupant mix is unknown. But it is worth noting that the DEIR for the 2455 Figueroa Street student housing project states that up to 10% of the units could also be made available to non-student, faculty and staff residents. Impact Sciences, Figueroa and Adams Student Housing Project Draft EIR, Sept. 2009, at p. II-13.*

Table B-26
Derivation of Undergraduate Students Residing in Private Housing in the Nexus Study Area, 2030

Calculation Factors	Calculations
Undergraduate Students, 2030[1]	17,800
Less: Existing Beds in Project Site[2]	(4,677)
Less: Net New Project Beds[3]	(998)
Less: Beds in USC-Owned & Affiliated Apartments in the Nexus Study Area[4]	(1,880)
Less: Beds in Greek Housing[4]	(1,300)
Less: Beds in Radisson Hotel[4]	(200)
Remainder	8,745
Percentage of Students Residing in Nexus Study Area[4]	70.2%
Number of Student Beds in Nexus Study Area	6,139
Less: Beds in New Private Student Housing[5]	(3,339)
Net Beds in Nexus Study Area	2,800
Average Students Per Unit[4]	2.90
Estimated Number of Student-Occupied Units	966

[1] From Table 20.
[2] From Table 9.
[3] From Table 19.
[4] From Table 14.
[5] From Table 16.

Prepared by: HR&A Advisors, Inc.

Table B-27 on page B-44 shows a similar derivation of the 2,955 beds and 2,081 units for graduate students who are projected to reside in private market units in the Nexus Study Area (i.e., not in USC-owned or affiliated housing) in 2030.

The 2030 projection of faculty and staff who will reside in the Nexus Study Area is based on the same 4.25 percent factor for ZIP Codes 90007 and 90037 that was used for the 2009 estimate. Multiplying this factor by the sum of 1,900 faculty and 7,000 staff, minus the Project's 418 beds of new faculty housing, yields a projection that 360 faculty and staff will reside within the Nexus Study Area, assuming again that these are all separate and renter households.

Table B-27
Derivation of Graduate Students Residing
in Private Housing in the Nexus Study Area, 2030

Calculation Factors	Calculations
Graduate Students, 2030[1]	18,200
Less: Existing Beds in Project Site	-
Less: Net New Project Beds[2]	(3,240)
Less: Beds in USC-Owned & Affiliated Apartments in the Nexus Study Area[3]	(405)
Less: Beds in Greek Housing[3]	-
Less: Beds in Radisson Hotel[3]	-
Remainder	14,555
Percentage of Students Residing in Nexus Study Area[3]	20.3%
Number of Student Beds in Nexus Area	2,955
Less: Beds in New Private Student Housing	-
Net Beds in Nexus Area	2,955
Average Students Per Unit3	1.42
Estimated Number of Student-Occupied Units	2,081

[1] From Table 20.
[2] From Table 19.
[3] From Table 15.

Prepared by: HR&A Advisors, Inc.

Table B-28 on page B-45 presents a summary of all the preceding projection analysis for 2030. It shows that of all students, faculty and staff, 20.8 percent will reside within the Project Site, another 29.5 percent will reside in the Nexus Study Area, and the remainder of 22,328 persons (49.7% of the total) will, by definition, reside somewhere other than the Project Site and the Nexus Study Area.

Figure B-2 on page B-46 compares the distribution of USC housing demand among the three mutually exclusive areas of housing supply in 2030, as compared with the distribution in 2009, per the above analysis.

Finally, Table B-29 on page B-46 shows that the projection of 3,407 units of privately owned rental housing that will be occupied by USC students, faculty and staff in the Nexus Study Area in 2030 will represent 15.2 percent of the Nexus Study Area's supply of such housing (or 7.9 percentage points less than in 2009) and the 6,115 students, faculty and staff residing in that housing will represent 8.7 percent of the population in private market renter-occupied units in the Nexus Study Area in 2030 (or 6.2 percentage points less than in 2009).

Table B-28
USC University Park Campus Student, Faculty & Staff Housing Supply, by Location, 2030

	Students								Faculty & Staff		Total		
	Undergrads			Grads			Total						
	Units	Beds	Beds %	Units	Beds	Beds %	Units	Beds	Units	Beds	Units	Beds	
Within Project Site[1]													
Residence Halls & Suites	1,101	2,921		-	-		1,101	2,921	-	-	1,101	2,921	
Apartments[2]	920	2,754		2,382	3,240		3,302	5,994	250	418	3,552	6,412	
Subtotal	2,021	5,675	31.9%	2,382	3,240	17.8%	4,403	8,915	250	418	4,653	9,333	20.8%
Within Nexus Study Area, Not Including Project Site[3]													
Greek Housing	N/A	1,300		-	-		-	1,300	-	-	-	1,300	
Radisson Hotel	N/A	200		-	-		-	200	-	-	-	200	
USC-Owned Apts.	649	1,880		286	405		935	2,285	-	-	935	2,285	
Non-USC Apts.	1,828	6,139		2,081	2,955		3,909	9,094	360	360	4,269	9,454	
Less: New Private Student Housing	(862)	(3,339)		-	-		(862)	(3,339)	-	-	(862)	(3,339)	
Net Private Student Housing	966	2,800		2,081	2,955		3,047	5,755	360	360	3,407	6,115	
Subtotal Nexus Study Area	2,477	9,519	53.5%	2,367	3,360	18.5%	4,844	12,879	360	360	5,204	13,239	29.5%
Outside Project Site & Nexus Study Area[4]	N/A	2,606	14.6%	N/A	11,600	63.7%	N/A	14,206		8,122		22,328	49.7%
Overall Total		17,800	100.0%		18,200	100.0%		36,000		8,900		44,900	100.0%

[1] From Table 27.

[2] Undergrad units based on 257 existing to remian + (2,160 new beds @ 3.26 beds/unit) minus 390 units to be demo'd; grad units based on 3,240 new beds @ 1.36 beds/unit; faculty beds beds based on 250 units x 1.67 beds/unit. All beds/unit factors in new units based on preliminary Project planning, per USC.

[3] From Tables 25, 26 and 27. Faculty and staff = 4.25% x (8,900-418) = 360.

[4] Remainder (i.e., total students, faculty and staff minus those within Project Site housing and Nexus Study Area housing).

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Figure B-2
USC Housing Demand vs. Supply
by Location, 2009 and 2030

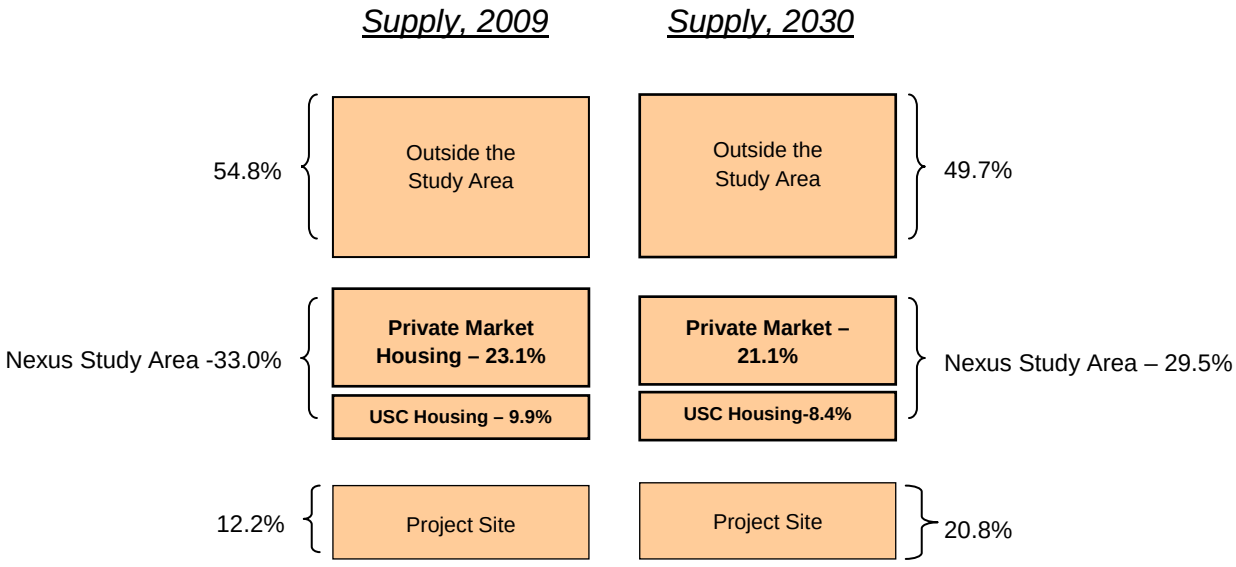

Table B-29
Households & Population in the Nexus Study Area and
USC-Related Shares of the Private Rental Housing Supply & Population, 2009 & 2030

	2009	2030	2009-2030 Change
Private Market Occupied Rental Units			
Total Occupied Rental Units[1]	19,597	24,209	4,612
Less: USC-Owned & Affiliated Units[2]	(935)	(935)	-
Less: New Private Student Housing Units[3]	-	(862)	(862)
Subtotal Private Market Rental Units	18,662	22,412	3,750
Total Occupied Rental Units Population[1]	61,691	76,210	14,519
Less: USC-Owned & Affiliated Beds[2]	(2,285)	(2,285)	-
Less: Private Student Housing Beds[3]	-	(3,339)	(3,339)
Subtotal Private Rental Units Population	59,406	70,586	11,180
Rental Units Occupied by USC Students, Faculty & Staff[4]	4,303	3,407	(896)
USC Students, Faculty & Staff Rental Units Population[4]	8,832	6,115	(2,717)
USC-Related Share of Private Rental Units	23.1%	15.2%	-7.9%
USC-Related Share of Private Rental Units Population	14.9%	8.7%	-6.2%

1 From Table 23.
2 From Table 10.
3 From Table 25.
4 From Tables 16 and 28.

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Based on the preceding analysis, and as shown in the highlighted cells in Table B-29, the combined effects of additional housing demand associated with the Project's increase in students, faculty and staff, together with the additional housing supply included in the Project and the privately developed student housing in the Nexus Study Area, result in 896 fewer units of privately owned housing that will be occupied by USC students, faculty and staff. Inasmuch as this provides new capacity to absorb future population growth without adding new supply, this is considered a beneficial impact of the Project. Removing student and faculty households from the private housing market in the Nexus Study Area may also have a beneficial impact on average housing prices, to the extent that USC populations outbid other households for available housing supply. By reducing the demand for housing external to the Nexus Study Area, and the attendant impacts of long-distance commuting to the USC campus, the Project would also indirectly produce other environmental benefits.

(6) Consistency With Adopted Plans and Policies

The degree to which the Project is consistent with housing goals in the City's General Plan Framework Element is shown in Table B-30. In sum, the Project is consistent with these objectives.

Table B-30
Project Compared to Applicable General Plan Framework Objectives

Objective #	Policy	Project Consistency
4.1	Plan the capacity for and develop incentives to encourage production of an adequate supply of housing units of various types within each City subregion to meet the projected housing needs by income level of the future population to the year 2010.	**Consistent.** The Project would provide up to 5,400 student beds in a variety of housing types and configurations and approximately 250 faculty housing units. This proposed housing development would help meet the housing needs of USC students and faculty who must now compete for space in the Nexus Study Area or other more distant locations. This would provide space in existing units to meet other housing needs.
4.2	Encourage the location of new multi-family housing development to occur in proximity to transit stations, along some transit corridors, and within some high activity areas with adequate transitions and buffers between higher-density developments and surrounding lower-density residential neighborhoods.	**Consistent.** The Project would provide up to 5,400 student beds in a variety of housing types and configurations and approximately 250 faculty housing units in close proximity to the future Metro Mid City/Exposition Boulevard Light Rail Transit line, near the major transit corridor of Figueroa Boulevard, and within the high activity USC University Park Campus area. No development is planned for surrounding lower-density residential neighborhoods.
4.4	Conserve scale and character of residential neighborhoods.	**Consistent.** See response to Policy 4.2

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The degree to which the Project is consistent with objectives in the City's Housing Element is shown in Table B-31. In sum, the Project is consistent with these objectives.

Table B-31
Project Compared to Applicable Housing Element Objectives

Objective #	Policy	Project Consistency
1.1	Plan the capacity and develop incentives for the production of an adequate supply of rental and ownership housing for households of all income levels and needs.	**Consistent.** The Project will increase the on-campus supply of rental housing for students and faculty at price levels that are within their means.
2.2	Promote sustainable neighborhoods that have mixed-income housing, jobs, amenities, services and transit.	**Consistent.** The Project would provide up to 5,400 student beds in a variety of housing types and configurations and approximately 250 faculty housing units in close proximity to the future Metro Mid City/Exposition Boulevard Light Rail Transit line, near the major transit corridor of Figueroa Boulevard, and within the high activity USC University Park Campus area. The Project revitalizes the area and helps to promote sustainable neighborhoods by enhancing the mix of uses/services and the quality of the area as a place to work, shop and reside. The Project would enhance shopping convenience and expand the variety of goods and services available to both the University community and the local neighborhood. The Project would generate incremental demand for commercial goods and services due to net additional students, faculty, staff, and visitors that would expand the potential customer base for existing and new commercial uses in the Project vicinity.
2.4	Promote livable neighborhoods with a mix of housing types, quality design and a scale and character that respects unique residential neighborhoods in the City.	**Consistent.** The Project will be developed on and around the USC campus. No development is planned for surrounding lower-density residential neighborhoods.
3.1	Assure that housing opportunities are accessible to all residents without discrimination on the basis of race, ancestry, sex, national origin, color, religion, sexual orientation, marital status, familial status, age, disability (including HIV/AIDS), and student status.	**Consistent.** USC makes University housing available to all qualified students and faculty without regard to race, ancestry, sex, national origin, color, religion, sexual orientation, marital status, familial status, age, disability (including HIV/AIDS), and student status.

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The degree to which the Project is consistent with objectives in the South Los Angeles Community Plan is shown in Table B-32 on page B-49. In sum, the Project is consistent with these objectives.[42]

[42] *As noted in the Project's Draft EIR, Subarea 1b and Subarea 2 are located in the adjacent Southeast Los Angeles Community Plan area. However, since no housing is planned for these areas, housing policies in the Southeast Los Angeles Community Plan are not addressed in this analysis.*

Table B-32
Project Compared to Applicable South Los Angeles Community Plan Objectives

Policy #	Policy	Project Consistency
1-1.2	Protect existing single-family and low density residential neighborhoods from encroachment by higher density residential and other incompatible uses.	**Consistent.** The proposed Project would not encroach upon existing single-family and low density residential neighborhoods. The Project site is separated from the closest single-family and low-density neighborhoods by medium-density and high-density residential neighborhoods. Furthermore, the Project does not propose any new uses which do not already exist in the area. The proposed Project's mix of educational uses, medium-density housing, and commercial uses would be compatible with the existing educational, residential, and commercial uses in the surrounding area.
1-2.1	Locate higher residential densities near commercial centers, light mass transit stations, and major bus routes where public service facilities, utilities, and topography will accommodate this development.	**Consistent.** The proposed Project would develop medium-density student and faculty housing near the Metro Mid City/Exposition Boulevard Light Rail Transit line. Furthermore, the Project area is served by numerous bus routes as well as existing public services and utilities. The topography of the Project area is also relatively flat and thus suitable for development.
1-5.1	Promote greater individual choice in type, quality, price, and location of housing.	**Consistent.** The proposed Project would provide student and faculty housing units of variable cost and sizes in a variety of building types and configurations. In addition, implementation of the proposed Project would help return existing occupied housing stock that had been converted to student housing back into housing for the general community. As such, the proposed Project would provide greater choice in housing type, quality, price, and location and would be consistent with this policy.
1-5.2	Ensure that new housing opportunities minimizes displacement of the residents.	**Consistent.** Development of the proposed Project would require the removal of existing student housing in Subarea 3 and potentially in Subarea 1. However, the proposed Project would provide up to 5,400 new student beds and 250 new faculty units and would thus result in a net increase in housing. The proposed Project's new housing uses would help meet the housing needs of the existing and projected University population through 2030. The Project would not involve displacement of residents in the area.

Prepared by: HR&A Advisors, Inc.

The degree to which the Project is consistent with objectives in the Redevelopment Plan is shown in Table B-33. In sum, the Project is consistent with these objectives.

Table B-33
Project Compared to Applicable Exposition/University Park Redevelopment Plan Objectives

Policy	Project Consistency
To make provisions for housing as is required to satisfy the needs and desires of the various age, income, and ethnic groups of the community, maximizing the opportunity for individual choice.	**Consistent.** The Project will increase the on-campus supply of housing for students and faculty who must now compete for space in the Nexus Study Area or other more distant locations. This will provide space in existing units to meet other housing needs.
To alleviate overcrowded, substandard housing conditions and to promote the development of a sufficient number of housing units for low and moderate income households.	**Consistent.** The Project will provide newly constructed housing for students and faculty at prices they can afford. This will reduce the number of overcrowded housing units in the Nexus Study Area.

Prepared by: HR&A Advisors, Inc.

The "jobs-housing balance" in the City of Los Angeles Subregion—i.e., the numerical ratio of 1.36 jobs to households—is very close to the ratio for SCAG region as a whole in 2005 (1.37), as shown in Table B-34 on page B-51 and is therefore considered close to "balance."[43] By 2030, however, the Subregion is forecasted to add households at a faster rate than jobs, and will therefore diverge from the jobs-household ratio in the region, such that the Subregion would be considered "housing rich/jobs poor" (i.e., a jobs-households ratio of 1.25 in the Subregion versus 1.33 in the region). The Project, by adding 3,514 total jobs (i.e., direct + indirect + induced)[44] and 4,426 total households (i.e., direct and indirect), would have a neutral numerical impact on the Subregion's 2030 jobs-housing balance in that it would not change the 1.25 ratio for that year. The Project is therefore consistent with this Regional Comprehensive Plan and Guide (RCPG) goal.

[43] *This concept of "jobs-housing balance," and some of the difficulties in measuring it and applying it as a regional strategy, are discussed in the Growth Management Chapter of SCAG's Regional Comprehensive Plan and Guide (pp. 3-12 to 3-13). See also, Ed Hamilton, Francine Rabinovitz, John H. Alschuler, Jr. and Paul J. Silvern, "Applying the Concept of Jobs-Housing Balance," Urban Land, October 1991, pp. 15-18. Nevertheless, the general concept of achieving better jobs-housing balance remains a fundamental part of SCAG growth management strategies, including the Compass Growth Vision, and related air quality policies.*

[44] *See the Project's Draft EIR, Section IV.I.1 (Employment) and Appendix J for details.*

Table B-34
Jobs Housing Balance Impacts of the Project
in the City of Los Angeles Subregion

	2005	2010	2020	2030
Pre-Project Subregion Conditions				
Employment[1]	1,804,471	1,860,672	1,933,860	2,003,196
Households[2]	1,325,600	1,386,658	1,506,564	1,600,754
Jobs-Housing Balance	1.36	1.34	1.28	1.25
Project Conditions				
Employment[3]				3,514
Households[4]				4,426
Subregion Conditions With Project[5]				
Employment				2,005,790
Households				1,605,180
Jobs-Housing Balance				**1.25**
SCAG Region[6]				
Employment	7,770,880	8,349,453	9,183,029	9,913,376
Households	5,687,196	6,086,986	6,840,328	7,449,484
Jobs-Housing Balance	1.37	1.37	1.34	1.33

[1] From Draft EIR, Appendix J, Table III-4.
[2] From Table 18.
[3] From Draft EIR, Appendix J, Table III-6
[4] From Table 19.
[5] Pre-Project Conditions + Project Conditions
[6] 2008 SCAG Regional Growth Forecast (available at: http://www.scag.ca.gov/forecast/index.htm).

Prepared by: HR&A Advisors, Inc.

(7) Other Growth Inducement Issues

While the Project's addition of new housing units is consistent with various regional and local policies, it will not, in and of itself, foster new growth in the area by removing impediments to growth. As described in the land use section of the Draft EIR, the property surrounding the Project Site is already developed with commercial, single-family, multi-family and industrial uses. Utility and other infrastructure upgrades, if necessary, for the Project are intended primarily to meet Project-related demand. The Project households' demand for commercial goods and services will be met by Project retail, services and community facilities, and by existing retail, service and other resources located within proximity to the Project Site. No additional development specifically to meet the Project's scale of household demand would be needed. On the contrary, the Project's new household demand will help support the viability of existing businesses in the Project vicinity.

(8) Conclusions Regarding Significance of Impacts

As stated in the Draft EIR, the evaluation of the Project's housing impacts against the City's CEQA Thresholds is follows.

As to the first significance threshold, the Project would not cause growth or accelerate growth in an undeveloped area, because the Project Site is in an already developed, urbanized location. Furthermore, the Project's direct and indirect households impact represent about three-tenths of one percent of the households forecasted by SCAG for the City of Los Angeles Subregion in 2030, and two percent of forecasted household growth in the Subregion between 2009 and 2030. Therefore, the Project would not result in any significant adverse impacts in terms of this significance threshold. The Project is also compatible with adopted local and regional housing growth policies. It would assist the City in meeting its fair share of regional housing need, have a neutral impact on Subregion jobs-housing balance, provide new housing opportunities, and conform with new City policy direction supporting higher density, compact, infill housing development that adds to the City's housing supply, while meeting other "smart growth" environmental objectives, consistent with the SCAG Compass Growth Visioning principles. By increasing the on-campus supply of housing for students and faculty, the Project will enable the existing housing supply in the Nexus Study Area and elsewhere to absorb future population growth.

As to the second significance threshold, the Project would not introduce unplanned infrastructure that was not previously evaluated in the relevant Community Plan. All circulation improvements planned for the Project are intended to improve existing and future circulation flows throughout the affected area consistent with the Project. Utility and other infrastructure upgrades planned for the Project are intended primarily to meet Project-related demand. The Project households' demand for commercial goods and services will be met by new retail, service and other resources included as part of the Project or already located within proximity of the Project Site. Therefore, the Project would not result in any significant adverse impacts in terms of this significance threshold.

As to the third significance threshold, the Project Site is located in an area of the City of Los Angeles that is already developed with single-family and multi-family homes, and commercial, residential and industrial uses. Future growth is planned for and expected, pursuant to a Community Plan and other Elements of the City's General Plan, and several Redevelopment Plans. Therefore, the Project would not result in any significant adverse impacts in terms of this significance threshold.

As to the fourth significance threshold, the Project is adding a substantial new supply of student and faculty housing on the USC campus that will relieve pressure on the number of units and pricing in the existing housing stock, particularly in the Nexus Study

Area, that is now occupied by students and faculty. Project housing prices will be set at rates that are affordable to USC students and faculty. Therefore, the Project would not result in any significant adverse impacts in terms of this significance threshold.

As to the fifth significance threshold, the 1,162 beds of housing that will be demolished as a result of the Project will be replaced with 5,818 additional student and faculty beds such that there would be a net gain of 4,656 such beds. Therefore, the Project would not result in any significant adverse impacts in terms of this significance threshold.

As to the sixth significance threshold, the housing planned for the Project is specifically intended to serve the existing and future needs of graduate and undergraduate students and faculty housing needs. Therefore, the Project would not result in any significant adverse impacts in terms of this significance threshold.

For all of the above reasons and as stated in the Draft EIR, the Project's housing impacts would be beneficial rather than adverse and thus are less than significant. Accordingly, no mitigation measures are required or recommended in the Draft EIR.

(9) Evaluation of Impacts in the Nexus Study Area

This evaluation of the Nexus Study Area extends beyond the requirements of CEQA, and the analysis of housing and households in the Draft EIR is adequate for the Project. Inasmuch as the Draft EIR included an analysis of the Project's impacts in the Nexus Study Area as well as within other larger geographic areas applicable to the scale of housing and labor markets or other regulatory requirements, the analysis and conclusions about housing impacts within the Nexus Study Area are the same as those identified in the Draft EIR. These impacts were determined to be beneficial rather than adverse, and thus are less than significant. As summarized above and as presented in the Draft EIR, this is because the Project would respond to and satisfy a portion of unmet housing demand, rather than induce housing growth. The Project would help achieve the household growth forecast for the City of Los Angeles Subregion and would be consistent with the non-binding forecast for the Nexus Study Area. The Project would also be consistent with regional policies to reduce urban sprawl, efficiently utilize existing infrastructure, reduce regional congestion, and improve air quality through the reduction of vehicle miles traveled.

Section C. Analysis of Study Area Employment Conditions and Citywide Fiscal Conditions

1. Introduction

As discussed in Section A, the environmental impact analyses of the USC Development Plan Project required pursuant to CEQA are set forth in the Draft EIR. This Nexus Study was requested by the Los Angeles City Council with topics that duplicate some of the analyses in the Draft EIR and exceeds in certain ways the required topics and scope of analyses under CEQA. However, this Nexus Study is not intended to satisfy any CEQA requirement and should not be used for any CEQA purpose related to the Project. The Nexus Study does not contain any new analyses or mitigation measures for the Project that are required by CEQA. All of the required CEQA analyses and mitigation measures for the Project are contained in the Draft EIR.

This section of the Nexus Study sets forth information regarding employment and economic context in the Draft EIR for the USC Development Plan for the Nexus Study Area. It begins with a discussion of the general economic context relevant to the Nexus Study Area. The existing setting subsection provides a summary of employment characteristics in the Nexus Study Area, including employment related to USC students, faculty and staff. This section also includes a summary of Citywide fiscal conditions at the time this report was originally prepared.

Finally, this section presents analysis of employment impacts associated with the USC Development Plan as presented in the Draft EIR,[1] and compares them with the applicable City CEQA significance thresholds. Because the Draft EIR includes discussion of impacts in the Nexus Study Area, the employment impacts of the Nexus Study as presented in this section are the same as those identified in the Draft EIR. This section also includes a summary of the Project's fiscal impacts in the City of Los Angeles resulting

[1] *City of Los Angeles, USC Development Plan Draft Environmental Impact Report, SCH No. 2009011101, prepared by Matrix Environmental, May 2010, Sections IV.I.1 (Employment) and Appendix J (Employment, Housing and Population Technical Report).*

from both its construction and annual operation once all planned improvements are completed and fully occupied. This analysis is based on a separate report on this topic that is not included in the Draft EIR, but is included as part of the Final EIR.[2]

2. Existing Setting

a. The General Economic Context in Southern California, Los Angeles County and the City of Los Angeles

(1) Regional and County Conditions

The six-county southern California region is one of the nation's largest and most dynamic regional economies, and accounts for about half the jobs and population in the State. The four cornerstones that support the region's economy, which is now much more diversified than in the past, are: (1) international trade, primarily through the Los Angeles International Airport and the Ports of Los Angeles, Long Beach and Port Hueneme; (2) the nation's largest entertainment and tourism sector; (3) the nation's largest diversified manufacturing sector; and (4) growing professional services, biotechnology and design markets.

By 2007, the southern California economy had recovered nearly all of the jobs lost during the early 1990s, when a combination of defense industry restructuring and recession, coupled with natural disasters (e.g., the 1994 Northridge earthquake) and manmade problems (the 1992 civil disturbance in Los Angeles) resulted in a loss of over 500,000 jobs. The national recession that officially began in December 2007 has, however, cost the State 1.4 million jobs as of December 2009, including 750,000 jobs in southern California, or over half (54 percent) of the Statewide total job loss.

Like the southern California region as a whole, employment growth within Los Angeles County has been accompanied by substantial changes in the structure of the County economy. For example, since 1990 the Los Angeles County manufacturing sector lost approximately 382,000 jobs, whereas service-related jobs increased by over 250,000 jobs, primarily in the educational and health services, trade, transportation and utilities, leisure and hospitality, professional and business services, and information sectors, while the government sector added approximately 64,000 jobs.

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[2] HR&A Advisors, Inc., *An Assessment of the Economic and Fiscal Impacts of the USC Development Plan, University of Southern California*, prepared for the University of California, May 2010. (Hereinafter referred to as the "Economic and Fiscal Report.").

Over the past two years various problems have combined to slow employment and economic growth in the region. For example, the annual average unemployment rate in Los Angeles County for 2007 was 5.0 percent, and 5.4 percent for the state as a whole. Nearly two years later, as the national recession appears to be reaching an end in a technical sense, the unemployment rate in December 2009 (preliminary estimates) in Los Angeles County and for the State as a whole was 12.3 percent. Economic forecasters expect unemployment in the State to remain at elevated levels throughout the next several years, and growth in personal income to persist at rates below historical trends.

Despite unusually difficult economic conditions in 2009, future prospects for the southern California regional economy in general, and the economy of Los Angeles County in particular, are very positive, because of the strengths of its economic base, scale of population and markets, and proximity to South America and Asian markets. Following the end of the current recession, it is likely that annual employment growth in the region will once again slightly exceed the national average growth rate.

(2) City of Los Angeles Subregion and Nexus Study Area

The City of Los Angeles Subregion includes the area of the City of Los Angeles, the City of San Fernando, and various adjacent unincorporated areas of Los Angeles County. The Nexus Study Area includes the community immediately surrounding the USC University Park Campus, and is generally bounded by Washington Boulevard on the north, Vernon Avenue on the south, Main Street on the east and Normandie Avenue on the west. The Nexus Study Area is depicted in Figure A-1 of Section A., Introduction. There are no official counts of employment or unemployment within either the City of Los Angeles Subregion or the Nexus Study Area. Based on SCAG's 2008 Regional Growth Forecast, an estimated 1,849,431 jobs are present in the City of Los Angeles Subregion, and, for information purposes only, 58,548 jobs are present within the Nexus Study Area as shown in Table C-1 on page C-4.

The only available estimate of unemployment for these two geographic areas is that provided by the U.S. Census for 2000, which stood at 6.0 percent for the City of Los Angeles, and 14.4 percent within the Nexus Study Area. Also of note is that these figures are much higher today as a result of the national recession (i.e., the unemployment rate for the City of Los Angeles during December 2009 was 13.2 percent).

Table C-1
Estimated 2009 Employment in City of Los Angeles Subregion and Nexus Study Area [a]

	Jobs
City of Los Angeles Subregion	1,849,431
Nexus Study Area	58,548

[a] *2009 Data based on straight-line interpolation between 2005 and 2010 values in the SCAG regional growth forecast adopted for the 2008 Regional Transportation Plan Update.*

Source: HR&A Advisors, Inc., 2010.

The 2000 U.S. Census also provides information about the labor force characteristics of those employed. This data indicates that over one-third of the labor force in the City of Los Angeles is employed in professional and technical occupations. Jobs present within the Nexus Study Area are much more concentrated in precision, production, craft and repair occupations, and service occupations than in the City as a whole, and have much smaller shares of those who are in professional and technical occupations, as well as those who are executives, managers and administrators. In terms of the types of industries, nearly one-quarter of all workers in the City of Los Angeles are employed in the manufacturing and retail trade sectors, whereas the labor force in the Nexus Study Area has a much higher proportion of its labor force employed in manufacturing and educational services, and a much lower proportion in professional, scientific and technical services, information and finance, and insurance. These relationships are shown in Table C-2 on page C-5.

(3) Employment at the University Park Campus and Economic Impacts of USC

USC is one of the world's leading research universities, and as such, has a substantial impact on the local and regional economies. Its numerous academic and professional programs sponsor wide-ranging research and produce thousands of graduates each year, many of whom remain in the region and contribute their talents to expanding the economy. USC also attracts substantial funding into the region from student tuition, federal research funds and venture capital for technology transfer projects. USC is the largest private employer in the City of Los Angeles and the second largest in the County. Its direct annual operations, and the indirect impact these expenditures have, along with those of its students, faculty, staff and visitors, multiply throughout the local and regional economy.

Table C-2
Characteristics of the Resident Labor Force
in the Nexus Study Area and the City of Los Angeles, 2000[a]

	Nexus Study Area		City of LA	
Civilian Labor Force				
Persons 16+ in Civilian Labor Force		31,076		1,690,266
Employed		26,598		1,533,638
Unemployed		4,478		156,628
Unemployment Rate		14.4%		9.3%
Occupational Category	# Jobs	% of Total	# Jobs	% of Total
Professional and technical	3,876	14.6%	332,211	21.7%
Executives, managers & administrators	1,213	4.6%	193,255	12.6%
Sales workers	2,135	8.0%	175,368	11.4%
Admin. support & clerical workers	4,627	17.4%	234,780	15.3%
Precision production, craft & repair workers	7,153	26.9%	268,560	17.5%
Operators, assemblers, transp., & material moving	1,051	4.0%	45,709	3.0%
Nonfarm laborers	984	3.7%	35,177	2.3%
Service workers	5,540	20.8%	245,661	16.0%
Farm workers or in forestry or fishing	19	0.1%	2,917	0.2%
Totals	**26,598**	**100.0%**	**1,533,638**	**100.0%**
Employment by Industry Sector	# Jobs	% of Total	# Jobs	% of Total
Agriculture, forestry, fishing, and hunting	45	0.2%	2,638	0.2%
Mining	-	0.0%	527	0.0%
Utilities	88	0.3%	5,092	0.3%
Construction	1,226	4.6%	81,120	5.3%
Manufacturing	5,694	21.4%	202,468	13.2%
Wholesale trade	934	3.5%	60,777	4.0%
Retail trade	2,182	8.2%	158,279	10.3%
Transportation and warehousing	1,058	4.0%	55,887	3.6%
Information industry	1,019	3.8%	107,440	7.0%
Finance and insurance	422	1.6%	70,485	4.6%
Real estate, rental and leasing	495	1.9%	37,645	2.5%
Professional, scientifc and technical services	842	3.2%	118,123	7.7%
Management of companies and enterprises	-	0.0%	548	0.0%
Admin. and support, & waste management & remediation	1,418	5.3%	79,343	5.2%
Educational services	3,854	14.5%	119,820	7.8%
Health care and social services	2,143	8.1%	146,128	9.5%
Arts, entertainment and recreation	478	1.8%	48,291	3.1%
Accommodation and food services	1,859	7.0%	99,309	6.5%
Other services except public administration	2,289	8.6%	105,067	6.9%
Public administration	552	2.1%	34,651	2.3%
Totals	**26,598**	**100.0%**	**1,533,638**	**100.0%**

[a] 2000 U.S. Census, per Geolytics Neighborhood Change Database, for City of LA as a whole and for the Nexus Study Area, based on census tracts that define its boundaries.

Source: HR&A Advisors, Inc., 2010.

The USC University Park Campus (Campus) currently has 1,732 faculty and 5,716 staff, for a total of 7,448 on-site employees. In addition, 7,593 of its 30,828 students are employed by USC on a part-time basis, and another 5,692 jobs are directly related to USC purchases of goods and services, expenditures for capital facilities, student spending and visitor spending.

Using the well-established IMPLAN economic impact model of the Los Angeles County economy, it is estimated that USC's annual expenditures of $1.87 billion to operate the Campus results in a $3.19 billion total impact in the Los Angeles County economy, including $1.10 billion in total compensation paid to workers.

b. Regulatory Framework

There are a variety of growth forecasts, and employment and economic policies that have been adopted by the City and SCAG that are relevant to a determination of Project consistency with adopted plans. These are described and summarized below.

(1) City of Los Angeles

The City's General Plan includes the General Plan Framework Element, nine other Citywide Elements (Air Quality, Conservation, Historic Preservation and Cultural Resources, Housing, Infrastructure Systems, Noise, Open Space, Public Facilities and Services, Safety and Transportation), and 35 Community Plans. Economic and employment issues for the Project site area are addressed in the General Plan Framework Element and the South Los Angeles and Southeast Los Angeles Community Plans.

(a) The General Plan Framework Element

The General Plan Framework Element's fundamental economic development goals are twofold: (1) to provide the physical locations and competitive financial environment necessary to attract various types of economic development to the City of Los Angeles; and (2) to encourage the geographic distribution of job growth in a manner supportive of the City's overall planning objectives. In order to encourage economic development in Los Angeles and effectively compete for limited opportunities in an increasingly competitive national economy, the Framework Element calls on the City to offer meaningful development incentives.

Among the Framework Element's policies that are relevant to the Project are:

- 7.2.2 Concentrate commercial development entitlements in areas best able to support them, including community and regional centers, transit stations, and mixed-use corridors. This concentration prevents commercial development from encroaching on existing residential neighborhoods.

- 7.2.3 Encourage new commercial development in proximity to rail and bus transit corridors and stations.

- 7.2.5 Promote and encourage the development of retail facilities appropriate to serve the shopping needs of the local population when planning new residential neighborhoods or major residential developments.

- 7.3.2 Retain existing neighborhood commercial activities within walking distance of residential areas.

- 7.6.1 Encourage the inclusion of community-serving uses (post offices, senior community centers, daycare providers, personal services, etc.) at the community and regional centers, in transit stations, and along the mixed-use corridors.

- 7.6.3 Facilitate the inclusion of shopping facilities in mixed-use developments that serve the needs of local residents and workers. If necessary, consider utilizing financing techniques such as land write-downs and density bonuses.

- 7.8.1 Place the highest priority on attracting new development projects to Los Angeles which have the potential to generate a net fiscal surplus for the City.

- 7.8.3 Encourage mixed-use development projects, which include revenue generating retail, to offset the fiscal costs associated with residential development.

(b) South Los Angeles Community Plan and Southeast Los Angeles Community Plan

The Project site lies within the areas of the South Los Angeles and Southeast Los Angeles Community Plans. The South Los Angeles Community Plan area encompasses approximately 9,881 acres bound on the north by Pico Boulevard, on the east by Figueroa Street and Broadway Avenue, on the south by 120th Street and the County of Los Angeles, and on the west by Van Ness Avenue and Arlington Avenue. Directly to its east, the Southeast Los Angeles Community Plan area encompasses approximately 9,884 acres bounded on the north by the Santa Monica Freeway (I-10), on the west by Figueroa Street and Broadway Avenue, on the south by the Century Freeway (I-105) and 120th Street, and on the east by the Alameda Corridor.

Within the Project vicinity, Figueroa Street is the boundary between the Community Plan areas; thus, Subarea 1A and all of Subarea 3 are located in the South Los Angeles Community Plan area, while Subarea 1B and Subarea 2 are located in the Southeast Los Angeles Community Plan area. Please refer to Section IV.G, Land Use, of the Draft EIR for additional information regarding the Community Plans and zoning designations applicable to the Project site.

The Community Plans establish goals, objectives, policies, and programs to meet the existing and future needs and desires of the community through the year 2010. The Community Plans aim to preserve and enhance the characteristics of existing residential neighborhoods while providing new housing opportunities; improve the function, design, and economic vitality of commercial corridors; preserve and enhance the positive traits of existing uses and the community identity; maximize development opportunities with respect to transit improvements while minimizing adverse impacts; and utilize the remaining commercial and industrial development opportunity sites for job producing uses. The South Los Angeles Community Plan does not address employment or economic issues, except as they are relate to development on commercial and industrial land. However, the South Los Angeles Community Plan calls for subsequent development of an Exposition Park Master Plan, which would address community empowerment, provide opportunities for a variety of jobs and job training for community residents, development reflective of community needs, and the need for appropriate development plans to prevent incongruent, incremental development. The Southeast Los Angeles Community Plan recognizes that the exploration and expansion of development opportunities are crucial elements in the revitalization and growth of the community. While the Community Plans do not address objectives or policies related to future development of the USC campus, the Community Plans objectives and policies that have relevance for the Project's retail and commercial development are:

- 2-1.1 New commercial uses shall be located in existing, established commercial areas or existing shopping centers.

- 2-1.3 Commercial areas should be consolidated and deepened to stimulate existing businesses, create opportunities for new development and off-street parking, expand the variety of goods and services, and improve shopping convenience as well as offer local employment.

The Southeast Los Angeles Community Plan includes a general projection of housing, employment and population to 2010. In addition, the South Los Angeles Community Plan also includes a general projection of housing and population (but not employment) to 2010 based on data presented in the Framework Element. However, this data does not have any relevance to this analysis because: (1) the Framework forecast was developed from an outdated SCAG regional growth forecast prepared in the mid-1990s; (2) the forecast time horizon is much shorter than the buildout period for the Project; and (3) per the text of the Community Plans, these forecast values are intended for general guidance only and exhibit certain inherent limitations.

(c) Exposition/University Park Redevelopment Project[3]

A portion of the Project Site is also located within the boundaries of the Community Redevelopment Agency of the City of Los Angeles' (CRA/LA) Exposition/University Park Redevelopment Project Area (formerly known as the Hoover and Hoover Expansion Redevelopment Project). The Redevelopment Project Area is a 574-acre redevelopment project located just southwest of downtown Los Angeles. The original project, established in 1966, covered 165 acres surrounding and including some portions of USC's University Park.

The current Redevelopment Plan goals call for the elimination of physical, economic and social blight by the creation of catalytic developments that promote a thriving business environment and enhance the surrounding community. The Redevelopment Plan's land use controls expire January 1, 2012. CRA/LA is currently studying the possible consolidation of this Project area with other project areas in South Los Angeles. Among the Redevelopment Plan's objectives that are related to employment and economic development are:[4]

- To encourage the cooperation and participation of residents, property owners, business persons, public agencies and community organizations in the revitalization of the area.
- To eliminate and prevent the spread of blight and deterioration and to conserve, rehabilitate, and redevelop the expanded Project area in accordance with the Plan.
- To implement the City's policy to establish "opportunity areas" to specifically encourage private investment, consistent with the Plan's objectives in housing, commerce and industry.
- To encourage a thriving commercial environment which will contribute to neighborhood improvement.
- To promote the development of commercial uses along Vermont Avenue that expands the availability of goods and services for residents in the area.

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[3] *This summary of the Redevelopment Plan and its objectives is based on a CRA/LA fact sheet and the text of the Redevelopment Plan, its five amendments, and the 2005-2009 5-Year Implementation Plan (all available on-line at: http://www.crala.net/internet-site/Projects/Hoover/workprogram.cfm).*

[4] *CRA/LA, Redevelopment Plan for the expanded project area of the Hoover Redevelopment Project as Amended by the Fifth Amendment to the Redevelopment Plan for the Hoover Redevelopment Project, adopted May 9, 1989, pp. 3-4.*

A small portion of the Project Site (Subarea 2) is located within CRA/LA's Council District Nine Corridors South of the Santa Monica Freeway Recovery Redevelopment Project Area.

(2) Southern California Association of Governments

The Southern California Association of Governments (SCAG) is the federally-designated Metropolitan Planning Organization for six Southern California counties (Ventura, Orange, San Bernardino, Riverside, Imperial, and Los Angeles). SCAG is responsible for developing plans for transportation, growth management and hazardous waste management, and a regional growth forecast that is a foundation for these plans and regional air quality plans developed by the South Coast Air Quality Management District (SCAQMD). SCAG prepares several plans to address regional growth, including the Regional Comprehensive Plan and Guide (RCPG), Regional Comprehensive Plan (RCP), the Southern California Compass Growth Vision, the Regional Housing Needs Assessment (RHNA), the Regional Transportation Plan (RTP), the Regional Transportation Improvement Program (RTIP), and annual State of the Region reports to measure progress toward achieving regional planning goals and objectives. Those SCAG plans that address employment issues are discussed below under separate subheadings.

(a) Regional Comprehensive Plan (RCP)

The 2008 RCP defines a vision for the SCAG region that includes balancing resource conservation, economic vitality, and quality of life. It also provides a long-term planning framework that describes comprehensive responses to growth and infrastructure challenges and recommends an Action Plan targeted for the year 2035. The 2008 RCP does not mandate integrated resources planning; however, SCAG does request that local governments consider the recommendations set forth in the RCP in their General Plan updates, municipal code amendments, design guidelines, incentive programs, and other actions.

In September 2008, SCAG accepted the RCP as a reference document, but did not adopt its policies. SCAG continues to promote the use of the RCP as an advisory document to local agencies in the Southern California region for their information and voluntary use for preparing local plans and handling local issues of regional significance. As such, these policies are not to be used as the basis for making determinations about conformity between individual development projects and SCAG plans and policies.

(b) Southern California Compass Growth Vision Report

The Compass Growth Vision Report, published by SCAG in June 2004, presents a comprehensive growth vision for the six-county SCAG region, as well as the achievements

of the process for developing the growth vision. The Compass Growth Vision details the evolution of the draft vision from the study of emerging growth trends and systematic modeling of the effects of alternative growth pattern scenarios on transportation systems, land consumption, and other factors.

The fundamental goal of the Growth Visioning effort is to make the SCAG region a better place to live, work and play for all residents regardless of race, ethnicity or income class. Thus, decisions regarding growth, transportation, land use, and economic development should be made to promote and sustain for future generations the region's mobility, livability and prosperity. Its "Regional Growth Principles" provide a framework for local and regional decision making that improves the quality of life for all residents in the region. Each principle is followed by a specific set of strategies intended to achieve this goal. The Project's consistency with the principles and policies of the Compass Growth Vision is the basis upon which SCAG determines the extent to which the Project is consistent with SCAG's plans. Of the Compass Growth Visioning principles and related policies identified by SCAG, the following are those that relate to employment:

- Locate new housing near existing jobs and new jobs near existing housing (SCAG Principle No. GV P1.2); and
- Provide developments which provide a mix of uses (SCAG Principle GV P2.2).

Additional Compass Growth principles that relate to the Project are discussed and evaluated in Section IV.G, Land Use of this Draft EIR.

(c) SCAG Regional Growth Forecast

As part of its responsibilities, SCAG prepares socioeconomic forecasts in five-year increments through the year 2030. The forecast is relied upon for preparation of the Regional Transportation Plan (RTP), the Air Quality Management Plan (AQMP), Regional Transportation Improvement Plan (RTIP), and the Regional Housing Needs Assessment (RHNA). Consistency with the growth forecast, at the Subregional level, is one criterion that SCAG uses in exercising its federal mandate to review "regionally significant" development projects for conformity with regional plans. The applicable forecast for use in this analysis is the one prepared for the 2008 RTP ("SCAG 2008 RTP Regional Growth Forecast").

The employment growth forecast for the City of Los Angeles Subregion between 2005 and 2030 is shown in Table C-3 on page C-13. The forecast projects a total of 2,003,196 jobs within the City of Los Angeles Subregion in 2030, which results in 153,765 additional jobs (+8.3 percent) being added to the Subregion between 2009 and 2030.

Using a version of the SCAG regional growth forecast that is available at the census tract level, it is possible to identify the growth for the Nexus Study Area that is included in the City of Los Angeles Subregion. Although it has no official policy status, the employment growth forecast for the Nexus Study Area, which is provided for informational purposes only, projects a total of 63,939 jobs in 2030 which results in 5,391 additional jobs (+9.5 percent) between 2009 (58,548 jobs) and 2030.

c. Citywide Fiscal Condition

(1) Overview of the City Budget

The General Fund is the primary operating fund of the City. It is used to account for all financial resources except those required to be accounted for in other funds. General Fund revenues are derived from such sources as taxes, licenses, permits, fees, fines, intergovernmental revenues, charges for services, special assessments, interest income and other resources available for discretionary funding. Expenditures are expended for functions of general government, protection of persons and property, public works, health and sanitation, transportation, cultural and recreational services, community development, capital outlay, and debt service. For purposes of the budget, the General Fund is separate and distinct from the Reserve Fund and other special funds created for a variety of restricted purposes.

Table C-3
SCAG Employment Forecast for the City of Los Angeles Subregion, 2009-2030

Projection Year	Jobs
2005 [a]	1,804,471
2009 [b]	1,849,431
2010 [a]	1,860,672
2020 [a]	1,933,860
2030 [a]	2,003,196
Change 2005 - 2009	
# Jobs	44,960
% Change	2.49%
Change 2009 - 2030	
# Jobs	153,765
% Change	8.31%

[a] *SCAG regional forecast adopted for the 2008 Regional Transportation Plan Update (available http://www.scag.ca.gov/forecast/index.htm).*

[b] *Based on a straight-line interpolation between 2005 – 2010 values in the SCAG regional growth forecast for the 2008 Regional Transportation Plan Update.*

Source: HR&A Advisors, Inc., 2010.

At the start of FY 2007-08, the City's General Fund budget totaled $4.4 billion, and the total City budget, including other special revenue funds and available fund balances, was $6.8 billion.

In addition to adverse impacts on employment and the general economy, the recent recession also took a significant toll on City finances. More recently, the City Administrative Officer (CAO) reported an overall $148.9 million deficit in FY 2009-10, even after implementation of adoption of a number of budget-balancing actions, including employee furloughs, and assuming about $73.5 million in expected revenue that had not yet been transferred from the Department of Water and Power. This caused the City to draw down its reserve fund to an unusually low level, leading to downgrades in the City's bond rating.[5]

[5] *Memorandum from Miguel A. Santana, City Administrative Officer, to the Mayor, City Council President and Chair of the City Council Budget and Finance Committee, re: Fourth Financial Status Report, April 9, 2010.*

(2) USC-Generated Revenues and Service Costs

In addition to its general economic contributions to the Los Angeles County economy, the existing operation of the University Park Campus also generates various tax and other revenues for the City This analysis focuses on the revenues that will accrue to the City, including both its General Fund and the Community Redevelopment Agency of the City of Los Angeles (CRA/LA). Additional revenues are also generated for the County of Los Angeles, local school districts, the State of California and a variety of other governmental agencies.

The City revenues include sales tax from on-campus purchases, utility users' tax associated with all campus academic, residential and other buildings, hotel-related transient occupancy tax, various household-related taxes, and the contribution of Campus property value to the calculation of the City's share of property tax in-lieu of motor vehicle license fee revenue. Even though the University is exempt from paying property tax on most land and improvements it owns directly, the value of the land and improvements still figures in the overall assessed valuation of property in the surrounding area, and hence the amount of property tax increment that accrues to CRA/LA for affordable housing and other eligible redevelopment purposes. A small share of this property tax revenue also flows back to the City's General Fund.

Based on analysis presented in the Economic and Fiscal Report, it is estimated that the University Park Campus currently generates about $13.4 million to the City's General Fund and an additional $443,000 to the CRA in net tax increment and housing set-aside funds. Over the next 30 years, the General Fund revenues are projected to total $379.1 million, plus $5.1 million to the Redevelopment Agency. These revenue estimates and projections are summarized in Table C-4 on page C-15, by revenue source.

Only some City departments provide direct services to commercial business, institutions and households, and only some of these are supported primarily by tax revenues, rather than fees for services, grants or other non-tax revenue sources. The departments that fit both of these categories include Police, Fire, Cultural Affairs, Bureau of Streets, Recreation and Parks, and Library. Altogether, the appropriations for these six departments, net of departmental revenues, account for over half (58.5%) of all City departmental appropriations.

Based on analysis in the Economic and Fiscal Report, it is estimated that over the next 30 years, the average annual costs of City services provided to the University Park Campus is about $5.8 million. When compared to annual average revenues over the same period, the operation of the current University Park Campus yields an annual average net fiscal benefit to the City of $11.8 million. Cumulatively over the entire 30-year projection period, the benefit totals about $250.8 million.

Table C-4
Revenues to the City of Los Angeles General Fund
and the Community Redevelopment Agency (CRA),
from Current Operation of the USC University Park Campus,
in 2009 and 2009-2030 Projection (in normal dollars)

	2009	2009-2030
Sales Tax	$ 6,977,211	$ 193,156,675
TOT Tax	$ 857,025	$ 26,170,779
Utility User's Tax	$ 2,095,779	$ 58,763,534
Gross Receipts Tax	$ 139,232	$ 1,824,291
Parking Fines	$ 408,675	$ 12,031,982
Gas Tax	$ 377,895	$ 11,125,773
Parking Tax	$ 1,369,624	$ 41,823,919
Prop 172 Sales Tax	$ 144,553	$ 4,191,994
Motor Vehicle License Tax	$ 964,135	$ 28,385,547
Property Tax In Lieu of VLF Tax	$ 50,000	$ 1,052,953
Porperty Tax Pass-Through to General Fund	$ 23,556	$ 518,241
Total Annual General Fund Revenues	$ 13,407,684	$ 379,045,690
Net Tax Increment Plus Housing Set Aside (CRA)	$ 443,482	$ 5,135,061

Source: HR&A Advisors, Inc.

3. Project Impacts

The Project consists of a land use and regulatory framework for physical development of approximately 2,500,000 square feet of academic and University-serving uses; up to 350,000 square feet of retail/commercial uses; and approximately 2,135,000 square feet of student and faculty housing providing up to 5,400 student beds in a variety of housing types and configurations and approximately 250 faculty housing units. The Project would also provide for an approximately 165,000 square foot hotel and conference center with up to 150 guest rooms, conference and banquet facility areas, sit down restaurant area, a swimming pool, and other related amenities. In addition, a new University-affiliated K-8 laboratory school and community educational academy comprised of up to approximately 80,000 square feet may also be developed. Implementation of the Project, and the incremental increases in students, faculty and staff during its buildout, generate construction jobs and incremental new jobs associated with the operation of each land use.

a. Methodology

The focus of environmental analysis prepared under CEQA is a project's potential to cause effects on the *physical* environment.[6] Accordingly, the State CEQA Guidelines state that while economic or social information may be included in an EIR, or may be presented in whatever form(s) the lead agency desires, social and economic effects shall not be treated as significant effects on the environment.[7] The CEQA Guidelines are very clear in that there must be a physical change resulting from the project directly or indirectly for an impact to be considered significant.[8]

Social and economic effects, including employment, are, however, relevant CEQA issues to the extent that a chain of cause and effect can be traced from a proposed project through anticipated social and economic changes resulting from the project to physical changes caused in turn by the economic and social changes.[9] If a project's physical impacts would cause social or economic effects, the magnitude of the social or economic effects may be relevant in determining whether a physical impact is "significant."[10] If the physical change causes adverse economic or social effects on people, those adverse effects may be used as the basis for determining that the physical change is significant.[11]

The "economic impact" of a new development project refers to the incremental difference that its construction and operation makes in terms of people employed, employee compensation paid and total value of goods and services circulating in the economy (i.e., "total economic output"). These impacts are generally classified into three categories, as follows:

- *Direct Impacts*. These include, for example, all jobs, compensation and spending resulting directly from the investment in Project construction. Direct impacts also

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[6] *"Environment" means the physical conditions which exist within the area which will be affected by a proposed project, including land, air, water, minerals, flora, fauna, noise, and objects of historic or aesthetic significance. (Pub. Res. Code § 21060.5).*

[7] *CEQA Guidelines §§ 15131(a) and 15064(f); see also Pub. Resources Code §§ 21100 and 21151. "Significant effect on the environment" means a substantial, or potentially substantial adverse change in the environment. (Pub. Res. Code § 21068).*

[8] *See discussion following CEQA Guidelines § 15131.*

[9] *CEQA Guidelines §§ 15131(a) and 15064(f).*

[10] *Id., § 15131(b). For example, a project's direct and indirect population can be used to estimate the amount of natural resources, energy resources, and public services that might be consumed as a result of the project, and whether the resulting scale of use is "significant."*

[11] *Id., § 15064(f).*

include those net new jobs, compensation and spending that would occur on the Project site once it is completed. These impacts represent the "first round" of impact on the County's economy.

- *Indirect Impacts*. Indirect impacts are created by business purchases of goods and services that are used as inputs to the construction process and the on-going operation of the completed Project, as well as successive rounds of spending to produce these goods and services. This impact category includes, for example, jobs, compensation paid and total spending that result when construction contractors purchase materials, supplies and services, or when USC or other business entities located in the completed Project purchase goods and services to supply, repair and maintain their operations.

- *Induced Impacts*. Induced impacts are created when direct and indirect employees spend their earnings for a variety of household goods and services, including convenience goods (e.g., supermarkets), comparison shopping goods (e.g., car dealers, household appliances and furniture stores) and consumer services (e.g., banks). These impacts typically occur near to where direct and indirect employee households reside, and therefore may be spread over a large geographic area.

The focus of the analysis is on jobs, for comparison with regional growth forecasts, but other dimensions of economic impact, including worker compensation (i.e., salary and benefits) and total economic output are also noted. The employment and other economic impacts of the Project were estimated using the IMPLAN model of the Los Angeles County economy. The employment and other related characteristics of the Project are also evaluated against the applicable policies adopted by the City and SCAG.

b. Significance Thresholds

Neither Appendix G of the CEQA Guidelines nor the *City of Los Angeles CEQA Thresholds Guide* addresses questions or thresholds applicable to employment. Nonetheless, due to the size of the proposed Project and the public interest in potential employment impacts, the Project would have a significant impact on employment if:

- It would cause growth (i.e., new employment) or accelerate development in an undeveloped area, that exceeds projected/planned levels for the year of Project buildout and result in an adverse physical change in the environment; or

- It is not compatible with adopted local and regional employment growth policies as set forth in the City's General Plan and other adopted plans, as well as the Southern California Association of Government's (SCAG) adopted regional plans and policies.

Based on these factors, the Project would have potentially significant impacts if it were to generate new growth that would exceed projected levels and could not be accommodated by existing and/or planned infrastructure.

c. Project Design Features

No Project Design Features are proposed with regard to employment.

d. Analysis of Proposed Project Impacts

(1) Construction-Related Direct Employment and Other Economic Impacts

The Project includes the construction of student and faculty housing academic space, retail/commercial space, a hotel and a laboratory school. The planned expenditure of about $931.6 million to construct the Project's improvements, as estimated by USC, would result in 4,894 construction jobs for buildings located within the Project site. [12] As such, the proposed Project would provide a public benefit by providing new direct and indirect employment opportunities during the construction period and impacts related to construction employment would be less than significant.

(2) Direct Project Operational Employment and Other Economic Impacts

(a) Scale of Direct Project Employment Impacts

As shown in Table C-3 on page C-13, annual operation of the retail/commercial space, hotel and lab school uses would generate a net increase of approximately 748 jobs when accounting for existing uses to be removed. In tandem with development of new academic and residential facilities pursuant to the Project, USC projects that its faculty would increase by 168 positions and staff would increase by 1,284 positions, for a total growth of 1,452 faculty and staff at buildout of the Project by 2030. USC also projects a net increase of 5,172 students, whose annual spending is estimated to result in 394 direct jobs. Project-related growth in faculty and staff, plus net new retail/commercial space, new hotel and new lab school jobs, and jobs resulting from incremental increases in student spending, totals 2,594 incremental direct net new jobs from all Project sources.

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[12] *Calculations based on Minnesota IMPLAN Group model and HR&A Advisors, Inc.*

(b) Project Employment Consistency With Adopted SCAG Employment Growth Forecasts

Table C-5 on page C-20 shows that the additional 2,594 direct full-time and part-time jobs associated with the Project represents about one-tenth of one percent of projected 2030 employment in the City of Los Angeles Subregion, and 1.7 percent of forecasted employment growth between 2009 and 2030. The Project is therefore consistent with SCAG's forecast for the City of Los Angeles Subregion. In addition, and for information purposes only, Table C-6 on page C-21 also shows that Project employment represents 4.0 percent of projected employment in the Nexus Study Area in 2030, and 48.1 percent of forecasted employment growth between 2009 and 2030.

In addition, as shown in Appendix J of the Draft EIR, the Project would also generate 404 indirect jobs and 516 induced jobs, for an overall total Project impact of 3,514 jobs. When accounting for these full-time and part-time jobs, the Project would represent 5.5 percent of projected employment in the Nexus Study Area in 2030, and 65.2 percent of projected employment growth between 2009 and 2030. This growth would represent about two-tenths of one percent of the projected 2030 employment growth in the City of Los Angeles Subregion, and 2.3 percent of the employment growth between 2009 and 2030.[13]

Based on the above, the Project would not cause growth (i.e., new employment) or accelerate development in an undeveloped area that exceeds projected/planned levels for the year of Project buildout. Impacts would be less than significant and no mitigation measures would be required.

(3) Consistency with Adopted Plans and Policies

In addition to the foregoing assessment of Project consistency with adopted local and regional employment growth forecasts, the following sections provide a qualitative assessment of the degree to which the Project is consistent with economic development and employment policies in the City's General Plan and SCAG's Compass Growth Vision Report.

[13] *Refer to Table III-7 of the Assessment of the Employment, Housing and Population Impacts of the USC Project prepared by HR&A Advisors, Inc. and provided in Appendix J of the Draft EIR.*

Table C-5
Derivation of Net New Direct Project Jobs

Land Uses	Project [a]	Less Existing / Demolished [a]	Net Project	Employment Density Factor [b]	Project Net Jobs
Faculty & Staff					
# Faculty	1,900	(1,732)	168	N/A	168
# Staff	7,000	(5,716)	1,284	N/A	1,284
Subtotal Faculty & Staff	*8,900*	(7,448)	1,452		1,452
Subarea 3 Retail/Commercial (sf)	350,000	(155,504)	194,496	2.2371	436
Subarea 3 Hotel (sf)	195,000	-	195,000	1.1325	221
Subarea 3 Laboratory School (sf)	80,000	-	80,000	1.1375	91
Subarea 3 Total Employment					*748*
Spending by Net Increase in Students [c]					394
Total					**2,594**

[a] *For faculty and staff, less 2009 numbers; for floor area, less amount to be demolished; per Draft EIR, Project Description.*

[b] *Employees per 1,000 square feet per LAUSD, Commercial/Industrial Development School Fee Justification Study, February 25, 2008, Table 4 p. 14, except Lab School, which is based on HR&A analysis of employment and floor area at the Corinne A. Seeds University Elementary School at UCLA.*

[c] *Per Economic and Fiscal Impacts Analysis, op. cit.*

Source: HR&A Advisors, Inc., 2010.

(a) City of Los Angeles

(i) Consistency with the City of Los Angeles General Plan Framework Element

The Framework Element sets forth a series of goals, objectives, and policies that focus on providing a comprehensive long-range view of the City as a whole. The Project would advance the goals, objectives, and policies of the Framework Element in the following ways: (i) concentrate growth in one of the City's urbanized areas, which also features access to future Expo Line rail stations; (ii) support the creation of new jobs; (iii) include a mix of academic, retail, entertainment, other commercial, and residential uses, all in the same development (i.e., mixed-use); (iv) expand what is considered to be a "clean" industry; and (v) yield a net fiscal surplus for the City. Thus, the Project is consistent with the applicable policies in the City's General Plan Framework Element.

Table C-6
Direct Project Employment Compared With the SCAG Employment Forecast for the Nexus Study Area and City of Los Angeles Subregion, 2009-2030

Projection Year	2009	2030	2009-2030
Nexus Study Area	58,548	63,939	5,391
SCAG City of LA Subregion	1,849,431	2,003,196	153,765
Project Direct Jobs		**2,594** [a]	
Project Impacts			
Project Share of Nexus Study Area		4.06%	48.12%
Share of SCAG City of LA Subregion		0.13%	1.69%

[a] *Refer to Table C-5 on page C-20.*

Source: HR&A Advisors, Inc., 2010.

More specifically, the Project's relationship to the Framework Element's economic development policies is presented in Table C-7 on page C-22.

(ii) Consistency with the South Los Angeles and Southeast Los Angeles Community Plans

The Community Plans do not include policies or recommendations with regard to employment that address the Project's academic components. The Project's retail and commercial uses create a variety of employment opportunities for City residents as well as accommodating the shopping needs of the Project population and nearby residents. The Project is therefore consistent with the applicable commercial land use goals, policies and objectives in the South Los Angeles and Southeast Los Angeles Community Plans, as shown in Table C-8 on page C-23.

(iii) Consistency with the Exposition/University Park Redevelopment Project

The Project is also consistent with employment- and economic development-related goals in the Exposition/University Park Redevelopment Plan, as amended, as shown in Table C-9 on page C-24.

Table C-7
Project Compared to Applicable General Plan Framework Policies

Policy #	Policy	Project Consistency
7.2.2	Concentrate commercial development entitlements in areas best able to support them, including community and regional centers, transit stations, and mixed-use corridors. This concentration prevents commercial development from encroaching on existing residential neighborhoods.	**Consistent.** The Project would develop University uses, student and faculty housing, retail/commercial uses, a hotel, and a laboratory school/community educational academy in proximity to the future Metro Mid City/Exposition Boulevard Light Rail Transit line as well as Figueroa Boulevard, a major transit corridor. Thus, the Project would be consistent with this policy.
7.2.3	Encourage new commercial development in proximity to rail and bus transit corridors and stations.	**Consistent.** See response to Policy 7.2.2, above.
7.2.5	Promote and encourage the development of retail facilities appropriate to serve the shopping needs of the local population when planning new residential neighborhoods or major residential developments.	**Consistent.** The retail and commercial uses planned for the Project's Subarea 3, including a grocery store, general retail, a cinema, and restaurants would serve the local population as well as a broader market area surrounding the University Park campus. Further analysis is included in the Urban Decay Technical Report (see Appendix K of the Draft EIR).
7.3.2	Retain existing neighborhood commercial activities within walking distance of residential areas.	**Consistent.** The Project's retail uses would be integrated into a mixed-use development that includes housing for students and faculty, and would also be adjacent to existing residential neighborhoods. The Project's retail uses are also generally in the same location as the existing retail uses.
7.6.1	Encourage the inclusion of community-serving uses (post offices, senior community centers, daycare providers, personal services, etc.) at the community and regional centers, in transit stations, and along the mixed-use corridors.	**Consistent.** The Project includes a variety of uses that would serve a local and broader market area such as a grocery store, general merchandise, cinema and restaurants.
7.6.3	Facilitate the inclusion of shopping facilities in mixed-use developments that serve the needs of local residents and workers. If necessary, consider utilizing financing techniques such as land write-downs and density bonuses.	**Consistent.** The Project's retail uses would serve the needs of the USC students, faculty, staff, and visitors, local residents and a broader market area. See also response to Policy 7.3.2 above.
7.8.1	Place the highest priority on attracting new development projects to Los Angeles which have the potential to generate a net fiscal surplus for the City.	**Consistent.** USC today already makes a substantial net positive contribution to the City's fiscal health, and the incremental impacts of the Project would have a net positive fiscal impact to the City.
7.8.3	Encourage mixed-use development projects, which include revenue generating retail, to offset the fiscal costs associated with residential development.	**Consistent.** The Project would provide for the development of a mix of University uses, student and faculty housing (i.e., 5,400 student beds and 250 faculty units), retail/commercial uses, a hotel, and a laboratory school/community educational academy. The mix of uses would strengthen the University and would help generate revenue in the Project area. Thus, the Project would be consistent with this policy.

Source: HR&A Advisors, Inc., 2010.

Table C-8
Project Compared to Applicable South Los Angeles and Southeast Los Angeles Community Plans Policies

Policy #	Policy	Project Consistency
2.1-1	New commercial uses shall be located in existing established commercial areas or existing shopping.	**Consistent.** The proposed Project's new commercial uses would replace the existing shopping center within Subarea 3. Therefore, the proposed Project would be consistent with this policy.
2.1-3	Commercial areas should be consolidated and deepened to stimulate existing businesses, create opportunities for new development and off-street parking, expand the variety of goods and services, and improve shopping convenience as well as offer local employment.	**Consistent.** The proposed Project would contribute to economic growth within the Project area by providing for University uses that would strengthen the University. In addition, the location of the Project's commercial uses, including hotel and retail uses, proximate to University uses and residential uses would enhance shopping convenience and expand the variety of goods and services available to both the University community and the local neighborhood. Therefore, the proposed Project would be consistent with this policy.

Source: HR&A Advisors, Inc., 2010.

(b) SCAG Compass Growth Vision Report

The Project would be consistent with the relevant employment-related policies of the Growth Vision Report set forth on page C-10. Specifically, the Project would develop new residential uses for the University community as well as new commercial uses within close proximity to the USC Campus, thereby locating both faculty and students within walking distance of University uses. In addition, the Project is a mixed use development that would provide new University uses, residential uses, retail/commercial uses, as well as a laboratory school/community educational academy. Thus, the Project would be consistent with Principles P1.2 and P2.2 of the Growth Vision Report.

Based on the analysis below, the Project would be consistent with adopted local and regional employment growth policies as set forth in the City's General Plan and other adopted plans, and the Southern California Association of Government's (SCAG) Compass Growth Vision Report. Thus, impacts would be less than significant and no mitigation measures would be required.

(4) Indirect Employment and Other Economic Impacts

The direct, indirect and induced employment and other impacts of Project construction and operation are summarized in Table C-10 on page C-25. As shown therein, the planned expenditure of about $931.6 million to construct the Project's

Table C-9
Project Compared to Applicable Redevelopment Plan Goals

Policy	Project Consistency
To encourage the cooperation and participation of residents, property owners, business persons, public agencies and community organizations in the revitalization of the area	**Consistent.** The development of the Project revitalizes the area and provides an opportunity for cooperation between the University, the City, other public agencies, local businesses and the community.
To eliminate and prevent the spread of blight and deterioration and to conserve, rehabilitate, and redevelop the Expanded Project area in accordance with the Plan.	**Consistent.** The Project revitalizes the area and would add new development and improvements that are consistent with the general objectives of the Redevelopment Plan.
To implement the City's policy to establish opportunity areas" to specifically encourage private investment, consistent with the Plan's objectives in housing, commerce and industry.	**Consistent.** The Project would result in substantial private investment by USC, and would support investment by others by enhancing the quality of the Project area as a place to work, shop and reside.
To encourage a thriving commercial environment which will contribute to neighborhood improvement.	**Consistent.** The Project would generate incremental demand for commercial goods and services due to the net additional students, faculty, staff and visitors, and would directly result in new retail and entertainment facilities.
To promote the development of commercial uses along Vermont Avenue that expands the availability of goods and services for residents in the area.	**Consistent.** The Project would generate incremental demand for commercial goods and services due to net additional students, faculty, staff, and visitors that would expand the potential customer base for new commercial uses on Vermont Avenue.

Source: HR&A Advisors, Inc., 2010.

improvements would result in a total economic output impact of $1.59 billion (in 2009 dollars) in the Los Angeles County economy, generating 9,090 total full-time and part-time jobs, of which 4,894 would be involved directly in the Project's construction. Most of the direct and many of the indirect (i.e., materials and services supplied to contractors) economic impacts of Project construction would occur in the City of Los Angeles economy. Some of the remaining impacts (i.e., induced impacts from household spending by direct and indirect workers) may occur in the City, or elsewhere in the County, depending on where these workers reside.

As shown in the third panel of Table C-10, the incremental increase in faculty and staff and other employees associated with the Project improvements and growth in student enrollment will add a total of 3,514 jobs, $132.5 million in employee compensation and $358.2 million in total economic benefit to the regional economy by 2030.

The annual operation of the University Park campus as of 2030, as shown in the last panel of Table C-10, with the Project, is estimated to generate a total economic impact of

Table C-10
Summary of Project Economic and Employment Impacts in the Los Angeles County Economy [a]
(all dollar amounts in 2009 $)

Impact Category	Direct Impact	Indirect Impact	Induced Impact	Total Impact [b]
Existing Annual Operations Impacts				
Employment	21,663	3,490	4,425	29,578
Employment Compensation	$740,191,545	$173,289,349	$190,766,573	$1,104,247,421
Total Economic Output	$1,866,312,039	$668,769,379	$659,152,410	$3,194,233,538
Project Construction Impact				
Employment	4,894	2,111	2,084	9,090
Employment Compensation	$254,919,669	$107,153,217	$83,395,471	$451,568,358
Total Economic Output	$931,588,534	$347,662,115	$307,586,287	$1,586,836,935
Project Annual Operations Impacts				
Employment	2,594	404	516	3,514
Employment Compensation	$90,330,354	$20,070,131	$22,140,584	$132,541,071
Total Economic Output	$205,406,043	$76,601,778	$76,179,828	$358,187,664
Total Annual Operations Impacts				
Employment	24,257	3,893	4,941	33,092
Employment Compensation	$830,521,899	$193,359,480	$212,907,157	$1,236,788,492
Total Economic Output	$2,071,718,082	$745,371,157	$735,332,238	$3,552,421,202

[a] *Per Economic and Fiscal Impacts Analysis, op.cit.*

[b] *Totals may not sum precisely due to independent rounding.*

Source: HR&A Advisors, Inc., 2010.

$3.55 billion (in 2009 dollars) in the Los Angeles County economy, for an incremental increase due to the Project of $358.2 million. Total employment in the County economy due to USC's operation in 2030 would be 33,092 total full-time and part-time jobs (a gain of 3,514 jobs over 2009), and $1.24 billion in compensation paid to employees (a gain of $132.5 million over 2009). Here again, most of the direct (i.e., on-site) and many of the indirect (i.e., materials and services supplied to USC) economic impacts of Project operation would occur in the City economy. Some of the remaining impacts may also occur in the City, or elsewhere in the County, depending on where these workers reside.

(5) Other Growth Inducement Issues

While the Project's addition of new employment is consistent with various regional and local policies, it will not, in and of itself, foster new growth in the area by removing impediments to growth. As described in the land use section of the Draft EIR, the property surrounding the Project site is already developed with single-family and multi-family homes, and commercial and industrial uses. All roadway improvements planned for the Project are tailored to enhance pedestrian safety or improve circulation flows throughout the area consistent with the Project impacts and objectives. Utility and other infrastructure upgrades planned for the Project are intended primarily to meet Project-related demand. The Project employees' and households' demand for commercial goods and services would be met by new retail, service and other resources included as part of the Project or already located within proximity of the Project site. No new development specifically to meet the Project's scale of household or commercial demand would be needed. On the contrary, the Project's new non-residential and residential uses would help support the viability of existing businesses in the Project vicinity.

(6) Existing Businesses within Subarea 3

As described in the Draft EIR, while approximately 223,785 square feet of retail/ commercial and cinema uses would be removed, the proposed Project would provide for the development of up to approximately 350,000 square feet of neighborhood retail/commercial uses within Subarea 3. Anticipated neighborhood-serving uses would include retail/shopping center uses, restaurants, a grocery store, a 2,000-seat movie theater, and a University fitness center. Other types of neighborhood-serving uses would also be provided.

USC has taken an active role in promoting small businesses in the University Park campus community. USC intends to continue these programs and others well into the future as the Project is constructed and the improvements are operated after completion. In addition, existing businesses will be provided the opportunity to relocate to new space in the Project's 350,000 square foot commercial component.

e. Fiscal Impacts

Using an analysis approach similar to that employed to estimate the City revenues and services costs for the existing University Park Campus, as discussed above, but applied to the particular characteristics of the land uses in the Project, it is estimated that the Project will result in a net fiscal incremental additional benefit to the City of $4.1 million on an annual average basis, and $51.1 million cumulatively, over the 2009-2030 buildout period. These results, which are detailed in the Economic and Fiscal Report, are summarized in Table C-11 below.

Table C-11
Projected Revenues, Service Costs and Net Fiscal Benefit Generated by the USC Development Plan, 2009-2030
(in normal dollars)

General Fund Revenues	Annual Average 2009-2030	Cummulative 2009-2030
Sales Tax	$ 2,477,874	$ 36,946,033
TOT Tax	$ 1,191,306	$ 19,060,893
Utility User's Tax	$ 1,970,290	$ 32,074,670
Gross Receipts Tax	$ 848,155	$ 15,681,827
Parking Fines	$ 129,179	$ 2,045,079
Gas Tax	$ 119,449	$ 1,891,050
Parking Tax	$ 68,952	$ 1,103,230
Prop 172 Sales Tax	$ 54,624	$ 863,180
Motor Vehicle License Tax	$ 304,755	$ 4,824,698
Property Tax In Lieu of VLF Tax	$ 927,095	$ 16,337,358
Total Annual Recurring Revenues	**$ 8,091,680**	**$ 130,828,018**
Less: City Service Costs	$ (3,988,148)	$ (79,762,956)
Net Fiscal Benefit	**$ 4,103,532**	**$ 51,065,062**
Net Tax Increment Plus Housing Set Aside (CRA)	**$ 646,685**	**$ 12,287,022**

Source: HR&A Advisors, Inc.

f. Conclusions Regarding Significance of Employment Impacts

Neither the Project, nor the Project in combination with cumulative development would exceed SCAG's adopted employment forecast for the City of Los Angeles Subregion. Furthermore, the Project would be consistent with adopted economic and employment policies of SCAG's Compass Growth Vision Report, as well as the City of Los Angeles General Plan Framework Element, the South Los Angeles and Southeast Los Angeles Community Plans, and the redevelopment plan for the Exposition/University Park Redevelopment Project. Therefore, Project-level impacts with respect to employment would be less than significant. In addition, cumulative impacts with respect to employment would also be less than significant.

g. Evaluation of Employment Impacts in the Nexus Study Area

This evaluation of the Nexus Study Area extends beyond the requirements of CEQA, and the analysis of housing and households in the Draft EIR is adequate for the Project. Inasmuch as the Draft EIR included an analysis of the Project's impacts in the Nexus Study Area as well as within other larger geographic areas applicable to the scale of housing and labor markets or other regulatory requirements, the analysis and conclusions about employment impacts within the Nexus Study Area are the same as those identified in the Draft EIR. These impacts were determined to be beneficial rather than adverse, and thus are less than significant. As summarized above and as presented in the Draft EIR, this is because the Project would respond to and satisfy a portion of unmet employment demand. The Project would help achieve the employment growth forecast for the City of Los Angeles Subregion and would be consistent with the non-binding forecast for the Nexus Study Area. The Project would also be consistent with regional policies to reduce urban sprawl, efficiently utilize existing infrastructure, reduce regional congestion, and improve air quality through the reduction of vehicle miles traveled.

Section D. Park Space and Recreation

1. Introduction

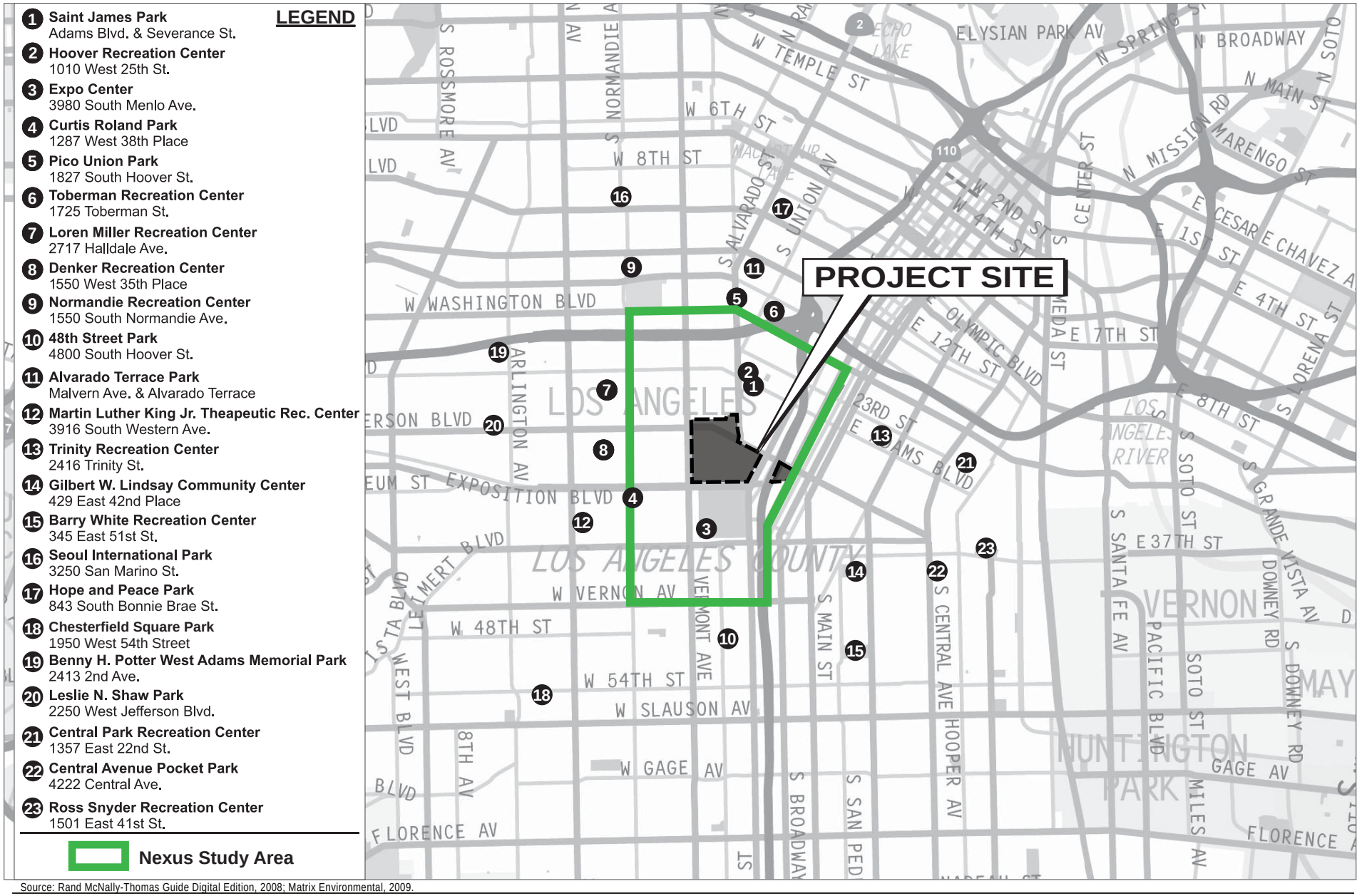
This section of the Nexus Study sets forth information regarding parks and recreational facilities services in the Draft EIR for the USC Development Plan, as well as information provided by the Los Angeles Department of Recreation and Parks for the Nexus Study Area. The scope of this park space and recreation section of the Nexus Study exceeds the required scope under the California Environmental Quality Act (CEQA). This section includes an assessment of existing parks and recreational facilities in the Nexus Study Area, a description of regulations and plans regarding parks and recreational facilities, the analysis of impacts on parks and recreational facilities associated with the USC Development Plan as presented in the Draft EIR, and a comparison of impacts identified within the Draft EIR with potential impacts in the Nexus Study Area. As demonstrated by the analysis below, project-related park and recreation impacts within the Nexus Study Area are the same as those identified in the Draft EIR. This section of the Nexus Study does not contain any new analyses or mitigation measures for the Project that are required by CEQA.

2. Environmental Setting

a. Existing Conditions

(1) Existing Parks and Recreational Facilities within the Study Area

The City of Los Angeles Department of Recreation and Parks (RAP) is responsible for the establishment, operation, and maintenance of public parks and recreational facilities in the City. The Study Area is located in the Griffith-Metro Region of RAP's jurisdiction. As shown in Figure D-1 on page D-2, there are a number of parks and recreation facilities located within the Study Area. Table D-1 on page D-3 lists the type of park and amenities for the public parks and recreational facilities located in the Nexus Study Area. In addition, Table D-1 also includes several parks and recreational facilities in close proximity to the Study Area, since these facilities also have the ability to serve residents within the Study Area. One of the primary parks facilities in the Study Area is Exposition Park, a public-serving regional park containing a variety of cultural and athletic venues such as the Los Angeles Memorial Coliseum, the California Science Center, the



Source: Rand McNally-Thomas Guide Digital Edition, 2008; Matrix Environmental, 2009.

Figure D-1
Existing Public Parks and Recreational Facilities
Within and in the Vicinity of the Study Area

Table D-1
Existing Public Parks and Recreational Facilities
Within and in the Vicinity of the Nexus Study Area

Map No. [a]	Facility and Address	Distance from Study Area [b]	Type of Park	Amenities	Acreage
Within Nexus Study Area					
1	Saint James Park Adams Boulevard and Severance Street	-	Pocket Park	Children's Play Area, Sand Box	0.90
2	Hoover Recreation Center 1010 West 25th Street	-	Recreation Center	Auditorium, Barbecue Pits, Basketball Courts (Unlighted/Outdoor), Children's Play Area, Indoor Gym (with Weights), Picnic Tables, Gymnasium	2.48
3	Exposition Park and Expo Center 3980 South Menlo Avenue	-	Regional Park and Recreation Center	Swim Stadium, Senior Center, Rose Garden, Pre-School, Recreation Center, Amphitheatre	6.65
4	Curtis (Roland) Park 1287 West 38th Place	-	Pocket Park	No Information Available	0.09
Outside of Nexus Study Area					
5	Pico Union Park 1827 South Hoover Street	0.06 Mile	Pocket Park	Children's Play Area, Picnic Tables	0.72
6	Toberman Recreation Center 1725 Toberman Street	0.11 Mile	Recreation Center	Auditorium, Barbecue Pits, Baseball Diamond (Lighted), Basketball Courts (Lighted/Indoor), Basketball Courts (Lighted/Outdoor), Children's Play Area, Community Room, Indoor Gym (without Weights), Picnic Tables	No Information Available

Table D-1 (Continued)
Existing Public Parks and Recreational Facilities
Within and in the Vicinity of the Nexus Study Area

Map No. [a]	Facility and Address	Distance from Study Area [b]	Type of Park	Amenities	Acreage
7	Loren Miller Recreation Center 2717 Halldale Avenue	0.17 Mile	Recreation Center	Basketball Courts (Lighted/Outdoor), Children's Play Area, Picnic Tables, Tennis Courts (Lighted)	2.42
8	Denker Recreation Center 1550 West 35th Place	0.26 Mile	Recreation Center	Baseball Diamond (Unlighted), Basketball Courts (Lighted/Indoor), Basketball Courts (Unlighted, Outdoor), Children's Play Area, Community Room, Football Field (Unlighted), Indoor Gym (Without Weights), Picnic Tables, Soccer Field (Unlighted)	2.81
9	Normandie Recreation Center 1550 South Normandie Avenue	0.27 Mile	Recreation Center	Auditorium, Baseball Diamond (Lighted), Basketball Courts (Lighted/Indoor), Basketball Courts (Lighted/Outdoor), Children's Play Area, Community Room, Handball Courts (Lighted), Picnic Tables	3.27
10	48th Street Park 4800 South Hoover Street	0.28 Mile	Pocket Park	Basketball Courts (Unlighted/Outdoor), Children's Play Area, Picnic Tables	0.96
11	Alvarado Terrace Park Malvern Avenue and Alvarado Terrace	0.36 Mile	Pocket Park	No Information Available	No Information Available
12	Martin Luther King Jr. Therapeutic Recreation Center 3916 South Western Avenue	0.48 Mile	Recreation Center	Universally Accessible Playground, Baseball Diamond (Lighted), Basketball Court (Lighted/Outdoor), Children's Play Area, Picnic Tables, Tennis Court (Lighted), Auditorium/Multi-Purpose Room	8.33

Table D-1 (Continued)
Existing Public Parks and Recreational Facilities
Within and in the Vicinity of the Nexus Study Area

Map No. [a]	Facility and Address	Distance from Study Area [b]	Type of Park	Amenities	Acreage
13	Trinity Recreation Center 2416 Trinity Street	0.52 Mile	Recreation Center	Auditorium, Basketball Courts (Lighted/Outdoor), Children's Play Area, Gymnasium	2.06
14	Gilbert W. Lindsay Community Center 429 East 42nd Place	0.69 Mile	Recreation Center	Barbecue Pits, Baseball Diamond (Lighted), Basketball Courts (Lighted/Outdoor), Children's Play Area, Football Field (Lighted), Picnic Tables, Soccer Field (Lighted), Skate Park	14.62
15	Barry White Recreation Center 345 East 51st Street	0.76 Mile	Recreation Center	Baseball Diamond (Lighted), Basketball Courts (Lighted/Outdoor), Children's Play Area, Picnic Tables, Seasonal Pool (Outdoor/Unheated), Tennis Courts (Lighted), Gymnasium, Pool	18.25
16	Seoul International Park 3250 San Marino Street	0.91 Mile	Recreation Center	Auditorium, Baseball Diamond (Lighted), Children's Play Area, Indoor Gym (without Weights), Picnic Tables, Jogging Path	No information Available
17	Hope and Peace Park 843 South Bonnie Brae Street	0.99 Mile	Pocket Park	Basketball Hoop, Benches	No Information Available
18	Chesterfield Square Park 1950 West 54th Street	1.01 Miles	Pocket Park	Children's Play Area, Picnic Tables	1.89
19	Benny H. Potter West Adams Memorial Park	1.06 Miles	Neighborhood Park	Barbecue Pits, Basketball Courts (Unlighted/Outdoor), Children's Play Area, Picnic Tables, South Seas House	No Information Available

Table D-1 (Continued)
Existing Public Parks and Recreational Facilities
Within and in the Vicinity of the Nexus Study Area

Map No. [a]	Facility and Address	Distance from Study Area [b]	Type of Park	Amenities	Acreage
	2413 2nd Avenue				
20	Leslie N. Shaw Park 2250 West Jefferson Boulevard	1.12 Miles	Pocket Park	Children's Play Area	No Information Available
21	Central Park Recreation Center 1357 East 22nd Street	1.23 Miles	Recreation Center	Basketball Courts, Children's Play Area, Pool	1.45
22	Central Avenue Pocket Park 4222 Central Avenue	1.41 Miles	Pocket Park	Children's Play Area, Bandstand	0.19
23	Ross Snyder Recreation Center 1501 East 41st Street	1.84 Miles	Recreation Center	Auditorium, Barbecue Pits, Baseball Diamond (Lighted), Basketball Courts (Lighted/Indoor), Basketball Courts (Lighted/Outdoor), Children's Play Area, Indoor Gym (without Weights), Picnic Tables, Seasonal Pool (Outdoor/Unheated), Soccer Field (Lighted), Tennis Courts (Unlighted), Volleyball Courts (Unlighted), Pool	11.34

[a] *The Map Numbers Correspond with Figure D-1 on page D-2.*

[b] *Distances Represent Driving Distances.*

Source: City of Los Angeles, Department of Recreation and Parks Facility Locator, http://www.laparks.org, accessed June 29, 2010 and Real Property Listing of the Los Angeles City Department of Recreation and Parks, April, 2011.

California African American Museum, the Los Angeles Sports Arena, Exposition Park Rose Garden, Exposition Park Intergenerational Community Center, Natural History Museum of Los Angeles County, and the Science Center School and Amgen Center for Science Learning.

Within the Study Area, the University operates and maintains its own system of private parks and recreation facilities. The University Park Campus (Campus) includes an array of active recreation facilities and passive park space. Among the active recreation facilities are athletic fields and facilities that primarily serve the University population.[1] Within the Campus, there are approximately 12.7 acres of outdoor active open space (excluding indoor active recreation facilities) which include the Dedeaux Baseball Field, Howard Jones Football Practice Field, and Marks Tennis Stadium. These facilities are scheduled for USC Athletic Department use only. However, special events may be booked subject to USC permission. Furthermore, the USC Galen Center and Athletic Pavilion provides additional indoor active recreation space for the USC basketball team and University students. In addition, the University operates the Lyon Center, which includes basketball, badminton and volleyball courts, a weight room, an auxiliary gym, a fitness room, a stretching room, racquetball and squash courts, a climbing wall, ping pong tables, a group exercise studio and a sauna and jacuzzi. The University also operates the Physical Education Building, which includes two gyms, men's and women's locker rooms, dance rooms, multi-purpose courts used for racquetball and handball, and an indoor swimming pool. In total, existing indoor and outdoor active open space within the Campus comprises approximately 14.9 acres.

The University's active recreation facilities are further complemented by an extensive network of passive park spaces that are strategically scattered throughout the Campus. Along with numerous small open space areas, the Campus includes parks and plazas (including but not limited to McCarthy Quad, Franklin Library Garden, Alumni Park, Founders Park, Hahn Plaza, John C. Argue Plaza, Robert D. Wood Plaza and Associates Park), which feature expansive lawns, manicured gardens, and park benches.[2] Passive open space on the Campus totals approximately 31.7 acres. Table D-2 on page D-8 provides specific details of the University's open space and recreation facilities. Figure D-2 on page D-12 shows the locations of the University's open space and recreational facilities

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[1] *University of Southern California Facilities Management Services, Operations and Maintenance Services – Athletic Fields, accessed online at: http://www.usc.edu/fms/dept_maintenance_buildings_athletic.shtml, accessed June 22, 2009.*

[2] *University of Southern California Facilities Management Services, Operations and Maintenance Services – Landscape, Irrigation and Heavy Equipment, accessed online at: http://www.usc.edu/fms/dept_maintenance_buildings_landscape.shtml, accessed June 22, 2009.*

Table D-2
Existing USC Parks and Recreational Facilities[a, b]

	Facility Name (map symbol)	Location	Amenities	Availability (refer to legend below)
Active Recreation Facilities [a]	Tennis Courts (TCX)	Northwestern portion of Subarea 1, West of McClintock Avenue	6 tennis courts	USC
	Marks Tennis Stadium (MTS)	Northwestern portion of Subarea 1, West of McClintock Avenue	5 tennis courts	NCAA
	Dedeaux Baseball Field (BDX)	Northwestern portion of Subarea 1, West of McClintock Avenue	Baseball diamond and stadium seating	NCAA
	Lyon Recreational Center (LRC)	Northwestern portion of Subarea 1, West of McClintock Avenue	Gymnasium, aerobics, racquetball, etc.	P
	MacDonald Swim Stadium (MAC)	Northwestern portion of Subarea 1, West of McClintock Avenue	Olympic-size swimming pool, diving boards and stadium seating	USC/P
	Howard Jones Field (FPF)	Northwestern portion of Subarea 1, West of McClintock Avenue	Full-size football field	NCAA
	Brian Kennedy Field (BKF)	Northwestern portion of Subarea 1, West of McClintock Avenue	Full-size football field	NCAA
	Cromwell Track and Field (CFX)	Northwestern portion of Subarea 1, East of McClintock Avenue	Olympic scale track and field facility	P
	Physical Education Building (PED)	Central Campus, Watt Way between Hellman Way and Childs Way	Gymnasium, studios, weight rooms	USC
	Figueroa Courts (FIG)	Eastern portion of Campus, adjacent to Figueroa Avenue	2 basketball courts, 1 volleyball court	P
	Galen Events Center (GEP)	Intersection of Jefferson Blvd. and Figueroa Avenue	Basketball Arena	NCAA
	Galen Athletic Pavilion (GAP)	Intersection of Jefferson Blvd. and Figueroa Avenue	Basketball practice courts and weight room	NCAA
	McAllister Soccer Field (MAC)	Subarea 3, intersection of 30th and Hoover	Full-size soccer field	NCAA

Table D-2 (Continued)
Existing USC Parks and Recreational Facilities

	Facility Name (map symbol)	Location	Amenities	Availability (refer to legend below)
Parks and Open Space[b]	Alumni Park	Eastern portion of Subarea 1, Trousdale Parkway between Hellman Way and Childs Way	Manicured gardens, walking paths, seating, water feature	P
	Amelia Taper Gardens	Northern portion of Subarea 1, on Trousdale Parkway	Seating, shade	P
	Archimedes Plaza	West of Watt Way between Bloom Walk and Downey Way in the western portion of Subarea 1	Hardscaping, landscaping, seating, shading, water feature	P
	Argue Plaza	Southeastern portion of Subarea 1, east of Doheny Library	Lawn, rose garden, water feature, seating	P
	Associates Park	Central Subarea 1	Lawn, seating, shading, walking paths	P
	Bogardus Courtyard	East of Trousdale Parkway in Subarea 1	Sunken Plaza with seating	P
	Crocker Plaza	Southern portion of Subarea 1, just north of Exposition Blvd.	Seating, shading	P
	E.F. Hutton Park	Central Subarea 1, south of West 34th St.	Expansive lawn	P
	Founders Park	Central Subarea 1	Expansive lawn and earthen berms, seating, shading, walking paths	P
	Franklin Library Garden	Subarea 1, Hellman Way, south of McCarthy Quad	Seating, water feature	P
	Froelich Gateway and Grove	Southern portion of Subarea 1, just north of Exposition Blvd.	Expansive lawn	P
	Gabilan Courtyard	Northeastern portion of Subarea 1, just north of West 34th St.	Hardscaping with seating	P
	Garden Plaza	Southeastern portion of Subarea 1, located between Lewis Hall and the University Club	Small hardscaped courtyard, tables and chairs	P
	Gavin Herbert Plaza	Located at the northern terminus of Trousdale Parkway, between West 34th St. and Jefferson Blvd.	Hardscaping, landscaping, seating, water feature	P

Table D-2 (Continued)
Existing USC Parks and Recreational Facilities

	Facility Name (map symbol)	Location	Amenities	Availability (refer to legend below)
Parks and Open Space (Continued)	Hahn Plaza	Central Subarea 1	Seating, water feature, adjacent to Tommy Trojan and student center	P
	Herklotz Courtyard	Southern portion of Subarea 1, just south of Childs Way.	Expansive hardscaping	P
	Jacques Plaza Lazzaro Plaza Martens Plaza	Northeastern portion of Subarea 1, just north of McCarthy Quad	Seating, water feature	P
	McCarthy Quad	Eastern portion of Subarea 1, immediately adjacent to southern entrance to Leavey Library	Expansive lawn, seating, walking paths	P
	Meyer Plaza	Subarea 1, Watt Avenue just east of Cromwell Field	Hardscaping, shading, seating	P
	Nazarian Pavilion	Eastern portion of Subarea 1, adjacent to Doheny Library	Hardscaped courtyard, tables and chairs	P
	Noble Plaza	Subarea 1, northern portion of Watt Avenue east of Heritage Hall	Hardscaped plaza	P
	Ogasawara Plaza Oscar Mendoza Court	Southwestern portion of Subarea 1, northwest of the intersection of Vermont Ave and Exposition Blvd.	Hardscaped courtyard, tables and chairs	P
	Queens Courtyard	Northern portion of Subarea 1	Hardscaping, shading, seating, water feature, public art	P
	Robert D. Wood Plaza	Northwestern portion of Subarea 1, immediately adjacent to	Seating, shading	P
	Stever Courtyard	Located at the center of the Gerontology Center, in the southwestern portion of Subarea 1	Hardscaping, water feature	P
	Storm and Dunmoyer Green	Eastern portion of Subarea 1, located between Hellman Way and McCarthy Way	Expansive lawn	P
	Town and Gown Recognition Court	Southern portion of Subarea 1, south of Childs Way	Hardscaping, shading, seating	USC
	Trojan League Courtyard	Southern portion of Subarea 1	Landscaping	P
	Trojan League Courtyard	Southern portion of Subarea 1	Landscaping	P

Table D-2 (Continued)
Existing USC Parks and Recreational Facilities

	Facility Name (map symbol)	Location	Amenities	Availability (refer to legend below)

P = Public use for community

NCAA = National College Athletic Association Use Only

USC = USC community (faculty, staff, students)

[a] *University of Southern California, June 12, 2009.*

[b] *University of Southern California Real Estate and Asset Management, Maps – University Park Campus, accessed online at: http://web-app.usc.edu/maps/#upc, accessed June 22, 2009.*

Source: University of Southern California and Matrix Environmental, 2010.

As indicated therein, the University's on-Campus open space and recreational facilities combine to create a park-like Campus setting.

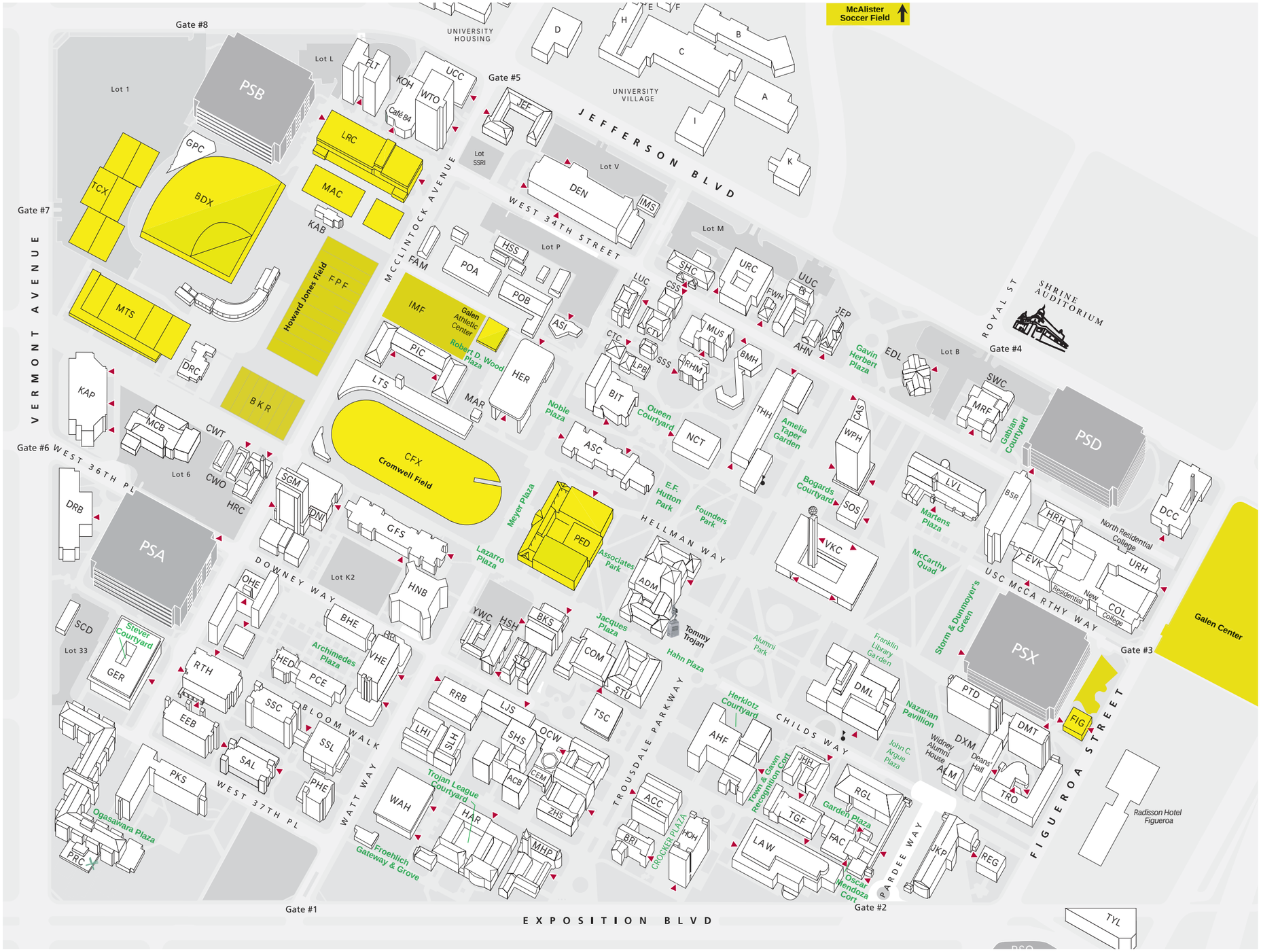
The McAlister Soccer Field is also located north of the Campus at the southeast corner of Hoover Street and West 30th Street. The Lyon Center, Physical Education Building and McAlister Soccer Field are open to USC students, faculty, and staff with valid current USC identification. In addition, the McDonald's Swim Stadium is located in the northwest corner of the Campus near the intersection of McClintock Avenue and Jefferson Boulevard and has two outdoor pools that are available for recreational swimming. USC alumni and guests, who include family members of USC faculty as well as the general community, may also utilize USC's recreational facilities (i.e., Lyon Recreation Center and Physical Education Building) by purchasing a membership.[3]

As discussed in detail in Section G.II, Police Protection, of this Nexus Study, the USC Department of Public Safety (DPS) provides policing and security services to the USC Campus and the surrounding community, including on-Campus open space and recreational facilities. The University also implements a comprehensive security program throughout the Campus. Security technology provided for University departments includes intrusion alarms, omni-lock systems, closed circuit televisions, electronic security devices and intrusion detection systems (i.e., electronic key access and associated databases), and Crime Prevention Through Environmental Design (CPTED) features. The Campus is

[3] *USC Recreational Sports, http://sait.usc.edu/recsports/site_content/memberships/opening.html; accessed January 26, 2010.*

LEGEND

- Recreational & Athletic Facilities
- Open Space & Plazas



Source: University of Southern California, 2009

Figure D-2
USC Existing Recreational Facilities and Open Space

outfitted with over 300 emergency phones, many of which are illuminated with blue emergency lights. These emergency phones provide a direct link to the DPS and are strategically located throughout the Campus grounds.

(2) Adequacy of Existing Parks and Recreational Facilities

Currently, over 36,000 acres of public parks and open space areas are located within the City. The total estimated acreages by park type are as follows:

- Mini parks – 50.76 total acres
- Neighborhood parks – 773.72 total acres
- Community parks – 2,763 total acres
- Regional and large urban parks – 33,889 total acres

Based on this inventory, the current service level for all park land is approximately 9.231acres per 1,000 persons.[4] However, this number is skewed by the large number of regional/large urban park land, which comprises about 90 percent of the total park land acreage Current service levels for all four park classifications within the City and the preliminary recommended service level guidelines are as follows:

- Mini parks – 0.013 acres per 1,000 persons (0.1 acres recommended by RAP)
- Neighborhood parks – 0.198 acres per 1,000 persons (1.5 acres recommended by RAP)
- Community parks – 0.759 acres per 1,000 persons (2 acres recommended) by RAP
- Regional and large urban parks – 8.261 acres per 1,000 persons (6 acres recommended by RAP)

Based on the above, the current inventory of regional and large urban parks exceeds the recommended service level guideline, whereas the current inventory of mini parks, neighborhood parks, and community parks is below the recommended service level guidelines. Specifically, existing neighborhood parks represent approximately 13 percent

[4] *Los Angeles Recreation and Parks Department, Citywide Community Needs Assessment, 2009..*

of the recommended acreage for this type of park and existing community parks represent approximately 34 percent of the recommended acreage for community parks. In addition, parks are in need of infrastructure improvements to restrooms, parking areas, playgrounds, picnic facilities, sport courts, security lighting, irrigation systems, sports fields and general site conditions which encourages vandalism and keeps the community away from using the parks in a positive manner.[5]

Based on the Service Area Analysis provided in the RAP 2009 Citywide Community Needs Assessment, the local area within and surrounding the Study Area does not meet the current recommended guidelines for mini parks, neighborhood parks, or community parks.[6] In addition, according to the RAP 2009 Citywide Community Needs Assessment, the Study Area is located in the South Los Angeles area. Within the South Los Angeles Area, the highest facility/amenity priority rankings are walking and biking trails, indoor pools and aquatic areas, small neighborhood parks, playground equipment, and indoor fitness and exercise facilities.[7] These rankings are similar to the overall City priority rankings of walking and biking trails, small neighborhood parks, indoor fitness and exercise facilities, indoor pools and aquatic facilities, and nature trails.

In order to quantify the deficiency in park acreage and evaluate the project-related demand for parks as compared with the level of service available, a service gap analysis was prepared internally by the City of Los Angeles Department of City Planning. This analysis is presented in Appendix E of this Nexus Study.

b. Regulatory Framework

(1) State Level

(a) Quimby Act

Section 66477 of the California Government Code, also known as the Quimby Act, was enacted in an effort to promote the availability of park and open space areas in response to California's rapid urbanization and decrease in the number of parks and

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[5] *Los Angeles Recreation and Parks Department, Citywide Community Needs Assessment, 2009..*

[6] *Ibid.*

[7] *Ibid.*

recreational facilities. The Quimby Act authorizes cities and counties to enact ordinances requiring the dedication of land, or the payment of fees for park and/or recreational facilities in lieu thereof, or both, by developers of residential subdivisions as a condition to the approval of a tentative map or parcel map. Thus, the Los Angeles Municipal Code (LAMC) Section 17.12 was authorized pursuant to the Quimby Act.

Under the Quimby Act, requirements for parkland dedications are not to exceed three acres of parkland per 1,000 persons residing within a subdivision, and in-lieu fee payments shall not exceed the proportionate amount necessary to provide three acres of parkland, unless the amount of existing neighborhood and community parkland exceeds that limit. As indicated above, the current ratio of Citywide parkland including regional park space is 9.231 acres per 1,000 persons.

(2) Local Level

The RAP has completed a number of planning documents that address the need for parks and recreational facilities within the City of Los Angeles. The most recent document completed by RAP is a Citywide Community Needs Assessment. In addition, the City of Los Angeles General Plan indicates that the adequacy of the public park and recreation system is based on three general standards: (1) sufficient land area reserved for parks and recreation; (2) appropriate distribution of park and recreation facilities throughout the City; and (3) a full complement of park and recreation facility types (i.e., active and passive recreation for all age groups) to accommodate a wide variety of users. The General Plan further states that parks and recreational facilities should be provided at the neighborhood, community, and regional levels.

The Public Recreation Plan (PRP), a component of the City's General Plan, establishes policies and standards related to parks, recreation facilities, and open space areas in the City. The PRP provides citywide goals, objectives, and recommendations concerning parks and recreation facilities. In addition to the City standards established in the PRP, park and open space requirements pursuant to the Quimby Act are also set forth in Sections 12.33 and 17.12 of the LAMC. The following provides information regarding the Citywide Community Needs Assessment, PRP and applicable LAMC standards and requirements.

(a) Citywide Community Needs Assessment

The RAP has completed a Citywide Community Needs Assessment (Assessment). The Assessment examined current and future recreational needs in the City as a first step in developing a Citywide park master plan and a five year capital improvement plan. The

overall objectives of the Assessment were to address needs for additional recreation facilities and park land, identify improvements to facilities to meet current and future demands, prevent future maintenance issues, and offer positive alternatives to an increasingly dense and urbanized population.[8] The Assessment provides a number of key recommendations to be implemented through a detailed master planning process. These recommendations include, but are not limited to, working with the City's Planning Department to modify Section 17.12 of the LAMC and update the PRP, developing an updated pricing and revenue plan to offset capital and operational costs, and implementing a land acquisition strategy involving developer impact agreements based on the standards for open space desired.[9]

Based on the Assessment, the expectation as to how far people are willing to travel to parks and recreational facilities has changed drastically since the time that the PRP was adopted in 1980 (discussed below). Specifically, sixty-three percent (63 percent) of survey respondents for the Assessment stated that they would travel at least one mile to visit a neighborhood park and thirty-eight (38 percent) of respondents would travel at least two miles. Additionally, seventy-one percent (71percent) of respondents would travel at least two miles to visit a community park and thirty-seven percent (37 percent) of respondents would travel more than three miles to visit a community park. Given the accessibility of public transit, it is now easy and convenient for people to access parks further than a half mile from their place of residence.

The Assessment also made the following findings:

- The City lacks the appropriate levels of neighborhood and community parks that are close to home and parks are not equitably distributed.
- The amount of park land available in the City is low for the level of density in the City and people would like more land for mini-parks, neighborhood parks, community parks and downtown parks. More parks are needed in redevelopment areas.
- There is a concern that some parks are unsafe and controlled by gangs and lack significant security, keeping people from using the park in a productive manner.

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[8] *Los Angeles Recreation and Parks Department, Citywide Community Needs Assessment, 2009.*

[9] *Ibid.*

- Parks are in need of infrastructure improvements to restrooms, parking areas, playgrounds, picnic facilities, sports courts, security lighting, irrigation systems, and sports fields. Poor general site conditions encourage vandalism and keep the community from using the parks in a positive manner.

- Sports fields are a needed amenity.

- Sustainable landscapes in parks are an important design element that the RAP should incorporate into design standards.

- Some existing parks are outdated in design. The RAP needs to develop new design standards for parks in the future and customize the parks to the people living in the area that will be using the park.

- Walkability of the City and the ability to walk in City parks are important.

- The RAP must create a balance of park types and manage by park and amenity standards that promote equal access.

- Many citizens indicate that parks were overused on weekends.

- Los Angeles River improvements were brought forward as opportunity sites that could be developed and improved for parks and recreation purposes.

(b) Public Recreation Plan

Adopted in 1980 by the Los Angeles City Council, the PRP focuses on the development of physical facilities by emphasizing the provision of neighborhood and community recreation sites, including community buildings, gymnasiums, swimming pools, and tennis courts.[10] To a larger extent, the PRP focuses on facility planning in residential areas, as these areas generate the greatest demand for parks and recreational facilities. The PRP also establishes general locations for future facilities based on a proposed service radius and projected population levels.

According to the standard park characteristics identified in the PRP, park facilities are discussed in terms of local parks and regional facilities. Local parks include neighborhood and community recreation sites, open space, and "small" parks, which are usually characterized as less than one acre in size. A neighborhood park typically provides

[10] *City of Los Angeles, Public Recreation Plan, a portion of the Service Systems Element of the Los Angeles General Plan. Approved October 9, 1980.*

space and facilities for outdoor and indoor recreation activities intended to serve residents of all ages within the immediate neighborhood. Neighborhood parks typically include a recreation building, multi-purpose field, hard court area, play apparatus, picnic area, off-street parking, and a maintenance area. Although the ideal size for a neighborhood park is considered to be ten acres, such parks within the City of Los Angeles are typically one to five acres in size. Community parks are designed to serve residents of all ages in several surrounding neighborhoods and include such facilities as community buildings, multi-purpose fields, hard court areas, parking, maintenance service areas, and play areas. These facilities may also include baseball diamonds, football and soccer fields, tennis and handball courts, and a swimming pool. According to the PRP, the ideal size for a community park is considered to be 15 to 20 acres.

The PRP also states that the location and allocation of acreage for neighborhood and community park and recreational facilities should be determined on the basis of the service radius within residential areas throughout the City. The desired long-range standard for local parks is based on a minimum of two acres per 1,000 persons for neighborhood parks with a service radius of 0.5 miles, and a minimum two acres per 1,000 persons for community parks with a service radius of two miles. However, the PRP also notes that these long-range standards may not be reached during the life of the plan and, therefore, includes more attainable short- and intermediate-range standards of one acre per 1,000 persons within a one-mile service radius for neighborhood parks and one acre per 1,000 persons within a two mile service radius for community parks. These standards are Citywide goals and are not intended to be requirements for individual development projects. Furthermore, as indicated above, the Citywide Community Needs Assessment states that since the time that the PRP was adopted in 1980, the expectation as to how far people are willing to travel to parks and recreational facilities has changed drastically. Given the accessibility of public transit, it is now easy and convenient for people to access parks further than a half mile from their place of residence.

(c) Los Angeles Municipal Code

Section 12.21 of the LAMC requires that all residential developments containing six or more dwelling units on a lot provide, at a minimum, the following usable open space area per dwelling unit: 100 square feet for each unit having less than three habitable rooms, 125 square feet for each unit having three habitable rooms, and 175 square feet for each unit having more than three habitable rooms. Section 12.21 of the LAMC also identifies what areas of a project would qualify as usable open space for the purposes of meeting the project's open space requirements. Usable open space is defined as areas designated for active or passive recreation and may consist of private and/or common areas. Common open space areas must be readily accessible to all residents of the site and constitute at least 50 percent of the total required usable open space. Common open

space areas can incorporate recreational amenities such as swimming pools, spas, children's play areas, and sitting areas. A minimum of 25 percent of the common open space area must be planted with ground cover, shrubs, or trees. In addition, indoor recreation amenities cannot constitute more than 25 percent of the total required usable open space. Private open space is defined as area which is contiguous to and immediately accessible from an individual dwelling unit and which contains a minimum of 50 square feet, of which no more than 50 square feet per dwelling unit is counted towards the total required usable open space. Private open space may not have a dimension of less than six feet in any direction.

In addition, Section 17.12 of the LAMC, authorized under the Quimby Act requires developers of residential subdivisions to set aside and dedicate land for park and recreational uses and/or pay in-lieu fees for park improvements. The area of parkland within a subdivision that is required to be dedicated is determined by the maximum density permitted by the zone within which the development is located. If the developer does not meet the full parkland dedication requirement, fees for park improvements may be paid to the RAP in lieu of the dedication of all or a portion of all the land. The in-lieu fees are calculated per dwelling unit to be constructed based on the zoning of the project site and must be paid prior to the issuance of building permits. These fees are adjusted annually.

Section 17.12 of the LAMC allows recreation areas developed on the project site for use by the particular project's residents to be credited against the project's land dedication requirement. Recreational areas that qualify under this provision of LAMC Section 17.12 include, in part, swimming pools and spas (when the spas are an integral part of a pool complex) and children's play areas with playground equipment comparable in type and quality to those found in City parks. Furthermore, the recreational areas proposed as part of a project must meet the following standards in order to be credited against the requirement for land dedication: (1) each facility is available for use by all residents of a project; and (2) the area and the facilities satisfy the park and recreation needs of a project so as to reduce that project's need for public park and recreation facilities. In addition, LAMC Section 17.12 provides that outdoor landscaped area may be credited against the project's land dedication requirement if approved by the Advisory Agency.

Consistent with LAMC Section 17.12, Section 12.33 of the LAMC prohibits the rezoning of a property to permit a multiple residential use in any multiple residential or commercial zone unless a dedication of parkland has been made or assured or a payment in lieu thereof has been made or guaranteed. The parkland dedicated and/or the in-lieu payment are subject to the restrictions, conditions, exemptions and credits of LAMC Section 17.12. The parkland dedication or payment must be made in accordance with the provisions of LAMC Section 17.12, and is based upon the maximum number of dwelling

units permitted by the requested zone or upon the number of dwelling units which may be constructed.

(d) South Los Angeles and Southeast Los Angeles Community Plans

The Study Area is located in the South Los Angeles and Southeast Los Angeles Community Plan areas.[11] The Community Plans for these areas both contain the Recreation and Parks Facilities goal to provide adequate recreation and park facilities that meet the needs of the residents in their plan area. In addition, Objective 4-1 within both of these Community Plans is to conserve, maintain, and better utilize existing recreation and park facilities that promote the recreational needs of the community. Both the South Los Angeles and the Southeast Los Angeles Community Plans also include the open space goal of maintaining a community with sufficient open space in balance with new development to serve recreational, environmental, health, and safety needs and to protect environmental and aesthetic resources. In addition, Objective 5-1 of both Community Plans is to preserve existing open space resources and, where possible, develop new open space.

3. Environmental Impacts

a. Significance Thresholds

The *City of Los Angeles CEQA Thresholds Guide* states that the determination of significance for impacts on parks and recreation shall be made on a case-by-case basis, considering the following factors:

- The net population increase resulting from the proposed project.
- The demand for recreation and park services anticipated at the time of project build-out compared to the expected level of service available. Consider, as applicable, scheduled improvements to recreation and park services (renovation, expansion, or addition) and the project's proportional contribution to the demand.

[11] *Both the South Los Angeles and Southeast Los Angeles Community Plans are currently being updated by the City.*

- Whether the project includes features that would reduce the demand for recreation and park services (e.g., on-site recreation facilities, land dedication or direct financial support to the Department of Recreation and Parks).

Based on these factors, the proposed Project would have a significant impact on parks and recreation, if:

- The proposed Project would generate a demand for park or recreational facilities that cannot be adequately accommodated by existing or planned facilities and service; or

- Project construction would interfere with existing park usage in a manner that would substantially reduce the service quality of the existing parks in the Project area.

b. Recreational and Open Space Improvements Proposed by Project

The proposed Project would provide for new open space areas and landscaping that would integrate new buildings and enhance the existing character of the Project site and surrounding area, while serving the recreational needs of Project students and the community. Open space may be located at or above grade, or on rooftops and may include courtyards, plazas, pedestrian paseos, pedestrian streets, roof terraces, gardens, other similar outdoor gathering places, and athletic courts and fields.

In particular, new pedestrian pathways and landscaping would be designed to reinforce the park-like, Campus setting in Subarea 1. Within Subarea 2, new landscaped areas and pedestrian pathways would integrate new buildings and buildings to remain. Subarea 3 would include various landscaped pedestrian pathways as well as open space areas. An approximately 20,000 square foot fitness center would be provided as part of the proposed building development in Subarea 3. Additionally, in Subarea 3, an approximately 141,500 square foot athletic open space area would be provided on the rooftop of the eastern parking garage.[12] An estimated 10.57 acres of publicly accessible passive open space areas, including outdoor plazas and landscaped areas would also be provided within Subarea 3A. As shown in Table D-3 on page D-22, a total of 14.28 acres of active and passive open space would be provided as part of the proposed Project.

[12] *The Project's open space areas, including the proposed athletic area on the rooftop of the eastern parking garage in Subarea 3, is not counted as new floor area proposed.*

Table D-3
Proposed Parks and Open Space

Open Space Proposed	Minimum Amount Proposed		Percentage of Total
	Square Feet	Acres	
Private Athletic Area on Rooftop of Parking	141,500	3.25	23
Private Fitness Center	20,000	0.46	3
Publicly Accessible Passive Open Space Within Subarea 3	429,800	10.57	74
	Total	**14.28**[a]	**100**

[a] *This number is conservative as it excludes additional open space to be provided in Subareas 1 and 2.*

Source: Matrix Environmental, 2010

For the new student, faculty, and staff housing uses in Subarea 3A, a minimum total of 100 square feet of open space area would be provided for each unit consisting of common or private open space areas.[13] Common residential open space areas would be accessible to all residents and open to the sky, except for a recreation room.

Additionally, common open space area would be a minimum of 400 square feet in area, with no horizontal dimension less than 15 feet. Recreation rooms of at least 600 square feet may qualify for up to 25 of the total open space area.

All planted areas would be designed and installed in compliance with the landscaping guidelines as provided in the proposed Project's proposed Urban Design Guidelines (see Section II, Project Description, of the Draft EIR prepared for the Project). All required setback areas not occupied by driveways or pedestrian paths would be landscaped. Common residential open space area including plazas, paseos, and courtyards would contain a minimum of 25 percent planted area, including trees, shrubs, and/or groundcovers (with the exception of the rooftop athletic area in Subarea 3A which may be constructed with an artificial surface and would not be required to contain any

[13] *Recreational rooms of at least 600 feet may qualify for up to 25 percent of the total open space requirements.*

planted areas). All planted areas would conform to the City's water conservation requirements.

As discussed in detail in Section G.II, Police Protection, of this Nexus Study, the proposed Project would provide for a variety of security features to promote individual and community safety. Specifically, the DPS would continue to provide security and policing services to the Campus. In addition, the University would incorporate security features similar to those currently provided on the Campus to ensure the safety of the University community. These features would include intrusion alarms, omni-lock systems, closed circuit televisions, electronic security devices and intrusion detection systems, and CPTED features. In addition, blue-light emergency phones would be located as need throughout the various areas of the Project site.

c. Project Impacts Set Forth in the Draft EIR

(1) Impacts on Existing Parks and Recreation Facilities

The proposed Project is intended to serve the existing University population as well as small annual increases in student enrollment, staff, and faculty through the year 2030. Based on historic University growth, it is anticipated that by the year 2030 the University community will be composed of approximately 18,500 undergraduate students, 17,500 graduate students, 1,900 full-time faculty, and 8,700 staff workers. When compared with recent 2009 enrollment and staffing, this represents an increase of approximately 2,100 undergraduate students, 4,000 graduate students, 380 full and part-time faculty, and 1,407 staff workers over a 21-year period. Adjunct professors and lecturers would also continue to be present on site. As described above, USC owns and maintains its own system of private parks and recreational facilities that it continuously enhances and enlarges to meet the demands of the University community. It is anticipated that the much of the additional demand for park and recreational services generated by University student, faculty, and staff growth through 2030 would be accommodated by USC's own open space and recreational system.

Notwithstanding, development of the proposed Project would increase the number of residents in the Griffith-Metro Region of RAP's jurisdiction. Specifically, as provided in Section IV.I.3, Population, of the Draft EIR, the proposed Project's 250 faculty units could generate a residential population of approximately 418 persons in the Project area.[14] In

[14] *Based on the household size of 1.67 persons/unit for the faculty units.*

addition, conservatively assuming that all of the new graduate beds would be occupied by students that currently reside outside of the Griffith-Metro Region, the new graduate beds would generate an additional residential population of approximately 3,240 persons. While it is anticipated that a large portion of the net new 998 undergraduate student beds would be occupied by students already living within the Griffith-Metro Region, for purposes of providing a conservative analysis, it is assumed that the net new 998 undergraduate student beds would generate a residential population of 998 new persons within the Project area.[15] Thus, when accounting for the new faculty units and net new student beds to be provided by the proposed Project, it is conservatively assumed that a new direct residential population of 4,656 persons within the Griffith-Metro Region would result from implementation of the proposed Project.[16] In addition, as discussed in Section IV.I.3, Population, of the Draft EIR, the proposed Project would also generate indirect growth of approximately 4,432 persons, only some of whom may ultimately reside within the Griffith-Metro Region.

USC's open space areas and recreational facilities would be available to University students, staff, and faculty members. Guests, who include family members of USC faculty as well as the general community, may also utilize USC's recreational facilities (i.e., Lyon Recreation Center and Physical Education Building) by purchasing a membership.[17] In addition, as previously described, the proposed Project would provide for new open space and landscaped areas as well as an athletic area and a fitness center in Subarea 3 to meet the recreational needs of the University community. Through the proposed Project's provision of approximately 14.28 acres of open space and recreational facilities as well as the availability of the existing University recreation facilities and open space, the proposed Project's demand for parks and recreation facilities generated by increased population growth would be adequately met. Thus, the proposed Project would not substantially increase the use of off-site neighborhood and regional parks and recreational facilities, nor would it substantially increase demand for recreation programs. Project impacts on parks and recreation facilities would be less than significant.

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[15] *As indicated in Table IV.I-19 in Section IV.I.2, Housing, of the Draft EIR, the Project would remove 1,162 existing undergraduate beds and develop 2,160 new beds. Therefore, the net new number of undergraduate beds would be approximately 998.*

[16] *Total potential residential population from the proposed Project = 418 residents from faculty units + 3,240 graduate beds + 998 net new undergraduate beds = 4,656 residents.*

[17] *USC Recreational Sports, http://sait.usc.edu/recsports/site_content/memberships/opening.html; accessed January 26, 2010.*

(2) Consistency with Plans and Regulations

(a) Public Recreation Plan

As indicated above, the PRP establishes a desired long-range Citywide standard for local parks of two acres per 1,000 persons within a half-mile radius for neighborhood parks and two acres per 1,000 persons within a two-mile radius for community parks. However, as discussed above, the PRP also notes that these long-range standards may not be reached during the life of the plan, and, therefore, includes more attainable short and intermediate-range standards of one acre per 1,000 persons within a one-mile radius for neighborhood parks and one acre per 1,000 persons within a two-mile radius for community parks. As previously noted, the PRP parkland standards are Citywide goals and are not requirements for individual development projects.

Development of the proposed Project would increase the number of residents in the Griffith-Metro Region of RAP's jurisdiction. As indicated in Section IV.I.3, Population, of the Draft EIR, the proposed Project's development of 250 faculty units could generate a residential population of approximately 418 persons.[18] In addition, conservatively assuming that all of the new graduate beds would be occupied by students that currently reside outside of RAP's Griffith-Metro Region area, the new graduate beds would generate an additional residential population of approximately 3,240 persons. While it is anticipated that a large portion of the net new 998 undergraduate student beds[19] would be occupied by students already living within the Griffith-Metro Region area, for purposes of providing a conservative analysis, it is assumed that the net new 998 undergraduate student beds would generate a residential population of 998 new persons within the Griffith-Metro Region area. Thus, when accounting for the new faculty units and net new student beds to be provided by the proposed Project, it is conservatively assumed that a new direct residential population of 4,656 persons would result from implementation of the proposed Project.[20]

With regard to the PRP standards for neighborhood parks, based on the conservative population assumptions described above, 9.31 acres of neighborhood

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[18] *Based on the household size of 1.67 persons/unit for the faculty units.*

[19] *As indicated in Table IV.I-19 in Section IV.I.2, Housing, of the Draft EIR, the proposed Project would remove 1,162 existing undergraduate beds and develop 2,160 new undergraduate beds. Therefore, the net new number of undergraduate beds would be approximately 998.*

[20] *Total potential residential population from the proposed Project = 418 residents from faculty units + 3,240 graduate beds + 998 net new undergraduate beds = 4,656 residents.*

parkland would need to be provided to meet the PRP's long-range standard of two acres per 1,000 residents and approximately 4.66 acres would need to be provided to meet the PRP's more attainable short- and intermediate-range standard of one acre per 1,000 residents. In addition, relative to the PRP standards for community parks, 9.31 acres of community parkland would need to be provided to meet the PRP's long-range standard of two acres per 1,000 residents and approximately 4.66 acres would need to be provided to meet the PRP's more attainable short- and intermediate-range standard of one acre per 1,000 residents.

Within Subarea 3, the proposed Project would provide approximately 141,500 square feet (approximately 3.25 acres) of active recreational space that would consist of an athletic area and a 20,000 square foot (approximately 0.46 acre) fitness center. In addition, the proposed Project would provide approximately 10.57 acres of open space, which, as indicated above, may be credited against a project's land dedication requirement if approved by the Advisory Agency. The proposed Project would also comply with the requirements of LAMC Section 17.12 with regard to the provision of recreational space for the new faculty units (refer to discussion below). Furthermore, the existing USC open space and recreational facilities within the Project vicinity would also assist in ensuring that the demand for facilities generated by the proposed Project would be adequately met. Thus, while the proposed Project may not meet the PRP's long-range standard for parks and recreational space, it would exceed the more attainable short- and intermediate-range standards of 9.31 acres for parks. Furthermore, as indicated above, the standards for the PRP are Citywide goals that are not intended to be requirements imposed on individual development projects.

(b) Los Angeles Municipal Code

As part of the proposed Project, a Specific Plan is proposed that will provide open space requirements in lieu of those set forth in LAMC 12,21. As part of these requirements, the proposed Project would provide a minimum of 100 square feet of open space area (consisting of common or private open space areas) for each housing unit. As previously discussed, Section 17.12 of the LAMC, enacted pursuant to the Quimby Act, sets forth a formula for new residential development to satisfy park and recreational demand through parkland dedication and/or the payment of in-lieu fees (as subject to determination by the RAP). Similarly, Section 12.33 of the LAMC prohibits the rezoning of a property for a multiple residential use unless the parkland dedication and/or payment of in-lieu fee requirements of LAMC Section 17.12 are met. The Project's 250 faculty housing units would be subject to the park and recreation site acquisition and development provisions of Section 17.12 of the LAMC, which may be satisfied through the dedication of land within a subdivision, the provision of on-site recreational facilities, through the payment of a fee, or through a combination of these. The current fee per dwelling unit is

$4,109. If all 250 faculty units are developed, the proposed Project could generate $1,027,250 in park fees. The proposed Project's student housing uses (5400 student beds) are considered University institutional uses that would continue to be provided with sufficient open space and recreational facilities and thus, would not be subject to the requirements of Sections 17.12 or 12.33 of the LAMC.

As described in Subsection 3.c, Project Design Features of Section IV,J.4, Parks and Recreation of the Draft EIR, the proposed Project would provide new open space and landscape areas that would integrate new buildings and enhance the existing character of the Project site and surrounding area. Subarea 3 would include various landscaped pedestrian pathways as well as open space areas that would total approximately 429,800 square feet (9.87 acres) of passive open space. Additionally, in Subarea 3, an approximately 141,500 square foot athletic area would be provided on the rooftop of the eastern parking garage and an approximately 20,000 square foot fitness center would be provided. However, it is not anticipated that the proposed Project would dedicate parkland to satisfy LAMC Section 17.12 requirements. Rather, any new open space areas and recreational areas are expected to be owned and maintained by the University. Thus, pursuant to the provisions of LAMC Section 17.12, the proposed Project could instead pay in-lieu fees for any land dedication requirement shortfall and/or provide on-site improvements equivalent in value to said in-lieu fees. New open space provided as part of the proposed Project could be credited against the total parkland dedication requirement or the total in-lieu park fee requirement, as determined by the City. Thus, with compliance with LAMC Section 17.12 and the provision of on-site recreational facilities, impacts would be less than significant.

(3) Secondary Impacts due to Housing Backfill

As analyzed in Section IV.I.2, Housing, of the Draft EIR, the proposed Project's development of student and faculty housing as well as future student housing developments may assist in returning existing housing stock that had previously been converted to University housing back to the general non-University community. Specifically, the proposed Project and other new student housing projects approved or underway in the vicinity are anticipated to result in the return of approximately 896 residential units to the community, thus resulting in an indirect backfill population increase of approximately 2,821 persons.[21] The backfill of units that may result from students, faculty, and staff vacating existing residential units may result in additional demand for

[21] *Based on the average household size of 3.148 person/unit for renter occupied units in the study area as indicated in Table IV-14 of the USC Development Plan Draft EIR - Employment Housing and Population Impacts Technical Report prepared by HR&A Advisors, Inc. (see Appendix J of the Draft EIR).*

parks and recreation facilities. However, the additional demand on parks and recreation facilities as a result of housing backfill would be incremental, and is not anticipated to require the addition of a new park or the expansion, consolidation, or relocation of an existing park to maintain service. Therefore, indirect impacts on parks and recreation would be less than significant.

4. Mitigation Measures Included in Draft EIR

As stated in the Draft EIR, project-level impacts on parks and recreation would be less than significant. Therefore, no mitigation measures are required.

5. Evaluation of Impacts in Nexus Study Area

This evaluation of the Nexus Study Area extends beyond the requirements of CEQA, and the analysis of parks and recreational facilities in the Draft EIR is adequate for the Project. The analysis of impacts within the Nexus Study Area is the same as that presented above. As indicated above, through the proposed Project's provision of approximately 14.28 acres of open space and recreational facilities as well as the availability of the existing University recreation facilities and open space, the proposed Project's demand for parks and recreation facilities would be adequately met. Thus, the proposed Project would not substantially increase the use of off-site neighborhood and regional parks and recreational facilities in the Nexus Study Area nor would it substantially increase demand for recreation programs in the Nexus Study Area. Therefore, the analysis and conclusions regarding impacts within the Nexus Study Area are the same as those identified in the Draft EIR, which have been determined to be less than significant.

6. Gap Analysis for Parks in Nexus Study Area

The environmental analysis addresses the proposed USC Development Plan's potential impacts on the public parks and recreation facilities administered by the City of Los Angeles Department of Recreation and Parks (DRP). The analysis focuses on whether existing facilities are sufficient to accommodate the growth that could be potentially generated by the project. The Nexus Study analyzed a larger area in order to provide a clearer understanding of the needs regarding park and open space facilities in the greater area surrounding USC. This area is bounded by Washington Boulevard to the north, Grand Avenue to the east, Normandie Avenue to the west and Vernon Avenue to the south. The population for this area is represented by the Local Area, which as stated in the EIR, is

estimated by Claritas to be 84,481 for 2009. This is based on the sum of values for the census tracts that approximate the Nexus Study Area.

As shown in Table 2 of Appendix E there are about 10.12 acres of existing public parks in the Nexus Study Area. About 66 percent of this acreage is comprised of regional parks. When the desired standard is applied to the existing park acreage and estimated population of 84,481 in the Nexus Study Area, it results in about 0.12 acres of overall parkland per 1,000 residents. When neighborhood and community parks are addressed separately, there is not enough park acreage available to meet the recommended standards for these types of parks. An additional 167 and 169 acres of neighborhood and community parks, respectively, would be needed in order to make up the deficiency.

Section E. Parking

1. Introduction

This section of the Nexus Study sets forth information regarding parking in the Draft EIR for the USC Development Plan. The scope of this parking section of the Nexus Study exceeds the required scope under the California Environmental Quality Act (CEQA). This section includes an assessment of existing parking conditions in the Nexus Study Area, a description of regulations and plans regarding parking, the analysis of impacts on parking associated with the USC Development Plan as presented in the Draft EIR, and a comparison of impacts identified within the Draft EIR with potential impacts in the Nexus Study Area. As demonstrated by the information herein, the potential CEQA impacts of the Proposed Project within the Nexus Study Area are fully accounted for in the Draft EIR. In addition, this section of the Nexus Study does not contain any new analyses or mitigation measures for the Project that are required by CEQA.

From a parking perspective, the DEIR Project area focused on the UPC main campus and the residential areas to the north, east, and west of the campus where parking impacts were the most likely to occur. Parking conditions in the southern portion of the Nexus Study Area are dominated by the Exposition Park facilities and events at the Coliseum and the Sports Arena and not likely to be affected by the USC Development Plan.

2. Existing Conditions Assessment

The area surrounding the USC Development Plan area contains both off-street and on-street parking. Some of the off-street parking is University-owned or in University-leased facilities while the rest is non-University owned. These facilities include residential and commercial establishments, some of which do offer parking to University students and staff.

a. Existing Parking Levels in the Nexus Study Area

(1) Existing University-Owned Parking Facilities

Parking for the existing buildings is provided through a combination of surface parking lots and structures throughout the Campus. As of September 2008, a total of

approximately 11,816 parking spaces were provided in University-owned on-Campus and off-Campus parking facilities within the Project area. This includes 8,956 parking spaces provided in University-owned and operated parking structures, 738 spaces in on-Campus surface parking lots, and 690 metered/pay-by-use parking spaces. An additional 1,432 off-street parking spaces are provided in off-Campus lots within the Project area. The University sells daily, monthly, and semester-long parking permits for parking structures and designated surface lots. Other lots and on-street parking on Campus are metered 24-hours per day.

Table E-1 on page E-3 provides a summary of the number of parking spaces in each University parking facility. Figure E-1 on page E-4 illustrates the location of USC-owned parking facilities identified in Table E-1. Together, all of the University's parking facilities make up the University's parking supply, which helps meet the parking needs of its students, faculty, staff, and visitors.

The University regularly monitors utilization of its parking facilities. As part of this internal monitoring, the University conducted a survey of existing parking demand at its primary parking facilities during the Fall 2009 semester. The survey was conducted three weeks into the semester, representing normal school conditions. Based on a previous 2006 parking study, the Campus-wide peak demand was determined to occur between 2:00 P.M. and 3:00 P.M., which was the time period used for the 2009 parking utilization survey. The survey indicated that during the peak parking demand period, University parking facilities were 80 percent utilized on average. During the same period, some of the more desirable parking locations were close to maximum capacity but other facilities were much less utilized.

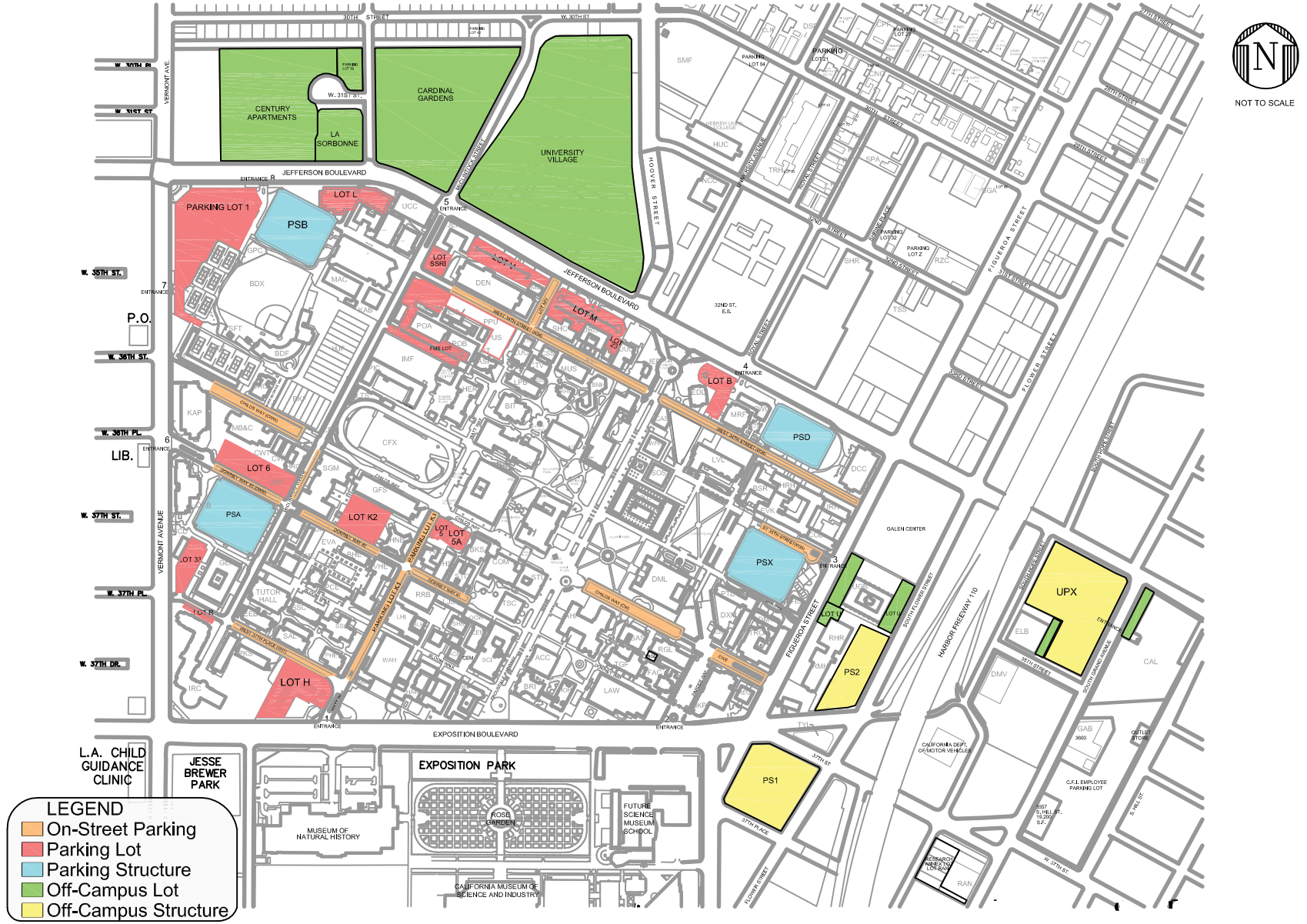
(2) Existing Non-University Owned Parking Facilities

There are also several non-University owned commercial parking facilities in the vicinity of the Project area that sell parking to USC students, staff faculty and visitors in addition to their respective uses. These include the Shrine Auditorium, located north of the Campus on Jefferson Boulevard, the Coliseum Menlo parking lot south of the Campus along Vermont Avenue, and the California Science Center parking lot south of Exposition Boulevard. Parking is also available in nearby non-University owned residential facilities outside of the Project area but within walking distance to the Project site. Several of these

Table E-1
Existing University Parking Supply Summary

	Total Spaces
Parking Structures	
PS1	1,153
PS2 [a]	1,193
PSA	1,713
PSB	1,056
PSD	1,345
PSX	1,013
P-Center [b]	1,483
Subtotal	*8,956*
On-Campus Surface Lots	
Lot 23	5
Lot 6 (includes Childs Way west)	163
Lot 33	12
Lot B	62
Lot Childs Way	84
Lot K1 (Watt Way)	74
Lot L	90
Lot M	86
Lot M/V (Watt Way north)	16
Lot R (37th Street)	16
Lot SSRI	20
Lot V	85
Lot 5	25
Subtotal	*738*
Pay-by-Use Lots	
Lot Bloom Walk (W of Watt Way)	6
Downey Way #1	24
Downey Way #2	19
Downey Way #3 (Gate 6)	24
Lot 1	389
Lot Childs Way East	14
McClintock Avenue	25
West 34th	86
West 37th	25
West 35th (McCarthy Way)	9
Lot 5A	22
Lot Child's Way West	47
Subtotal	*690*
Off-Campus Lots	
Credit Union	90
University Gardens Lot U	79
3434 Grand	21
Cardinal Garden Apartments	303
Century Apartments	278
La Sorbonne Apartments	25
University Village	636
Subtotal	*1,432*
TOTAL OF UNIVERSITY-OWNED PARKING FACILITIES	**11,816**

[a] *Parking for Radisson Hotel is included in the parking supply.*
[b] *440 parking spaces out of the 1,923 total spaces are covenanted to University Gateway, leaving 1,483 parking spaces available for University uses.*
Source: Fehr & Peers, 2010.



Source: Fehr & Peers Transportation Consultants, 2010.

Figure E-1
Location of USC-Owned Parking Facilities

facilities provide housing for students and staff who can park at home and walk or bike to the Campus.

(3) Adjacent Area Parking

Some University parking does occur outside of these University-owned major structures, including on-street parking in the area around Campus. The marketplace for parking supply/demand is constantly changing as new University and non-University facilities are developed in the area. If non-University parking resources (on- and off-street) are seen by the user as cheaper and/or more convenient, then some will choose to park in those locations, even if space is available in the University-provided facilities. The neighborhood north of the Campus has a high demand of on-street parking during the day and night. The majority of demand during the day is attributable to neighborhood students, residents, non-resident commuter students, and visitors who park in the neighborhood to avoid the University's parking fees. High parking demand at night is attributable to the number of student residents.

An on-street parking inventory was conducted by USC in the immediate neighborhoods surrounding the University. The following areas were surveyed as part of the study:

- North Survey Area: This area extended from Adams Boulevard to the north, Jefferson Boulevard to the south, Figueroa Street to the east, and Vermont Avenue to the West.

- West Survey Area: This survey area extended from Jefferson Boulevard to the north, Exposition Boulevard to the south, Vermont Avenue to the east, and Normandie Avenue to the west.

- East Survey Area: This survey area generally extended from Adams Boulevard to the north, 37th Street to the south, Grand Avenue to the east, and Figueroa Street to the west.

All north-south and east-west public roadways within the three study areas were inventoried on a block-by-block basis to determine the number of available on-street parking spaces. Only those on-street areas where parking is legally allowed were included in this analysis.

A total of 5,218 on-street parking spaces were available at the time of the survey. This included 2,118 spaces available in the North Survey Area, 2,370 spaces in the West Survey Area and 730 spaces in the East Survey Area. The above inventory includes both unmarked and marked (metered) parking spaces. Metered parking spaces mostly exist

along the major routes through the above surveyed area or adjacent to commercial establishments. Unmarked spaces exist along local neighborhood streets.

(4) Sharing of Parking Facilities Between Users

As described above, the USC area has many different commercial and residential developments with their own parking supplies, in addition to the University itself. Just as some of the nearby non-University facilities sell parking permits to University students, faculty, and staff, parking is shared between facilities for events. During large University events, such as commencement festivities and football games, non-University owned parking facilities open to visitors. During non-University events, such as those at the Shrine Auditorium or Exposition Park, the University sells parking to patrons of those events. Through this comprehensive system of shared parking, each individual development is able to maintain fewer dedicated parking spaces while still having the necessary supply to meet the parking demand.

b. General Demand for Parking in the Nexus Study Area

Within the USC Development Plan study area (generally bounded by Washington Boulevard to the north, Martin Luther King Jr. Boulevard to the south, Normandie Avenue to the west, and Main Street to the east) the parking facilities are 80% occupied during the peak hour of the day. This occupancy level varies across the campus facilities with many near capacity and others with capacity available even during the busiest hour of the day.

If non-University parking resources (on- and off-street) are seen by the user as cheaper and/or more convenient, then some University-related users will choose to park in those locations, even if space is available in the University-provided facilities.

The neighborhood north of USC has a high demand for on-street parking during the day and night. The majority of demand during the day is attributable to neighborhood students, residents, non-resident commuter students and visitors who park in the neighborhood to avoid the University parking fee. High parking demand at night is attributable to the number of student-residents living within this area.

Residential and commercial areas in the southern portion of the Nexus Study Area are well utilized on a typical business day and heavily burdened during a Coliseum or Sports Arena event. The day-to-day activities within the Project area do not have much effect on the southern portion of the Nexus Study Area.

c. Parking Regulations and Plans

(1) Los Angeles Municipal Code

Section 12.21(A)4 of the Los Angeles Municipal Code (LAMC) sets forth parking requirements based on the types and amount of land uses. Parking requirements for residential uses are based upon the type of residential unit (i.e., single- or multi-family) and the number of habitable rooms per unit. Under Section 12.21(A)4 of the LAMC, parking for multi-family residential uses must be provided at the following ratios: one and one-half parking spaces for each dwelling unit of three habitable rooms (one bedroom units) and two parking spaces for each dwelling unit of more than three habitable rooms (two and three bedroom units). LAMC parking requirements for commercial uses and general commercial uses are required to provide one parking space for every 500 square feet. Specific parking requirements have been established for certain commercial uses. Specifically, for health club uses, athletic clubs, gyms or similar establishments, at least one parking space for each 100 square feet of floor area is required. General retail uses (excluding furniture stores and major appliance stores) are required to provide four spaces per 1,000 square feet while restaurant and bar uses, greater than 1,000 square feet, are required to provide one space per 100 square feet; however, as the Project area is located within a designated Enterprise Zone, the LAMC allows parking for these uses to be provided at a rate of one parking space for every 500 square feet of floor area. The LAMC also provides specific parking requirements for proposed hotel uses. Specifically, a hotel must provide one space for each of the first 30 rooms provided, half a space for the next 30 hotel rooms and one third of a space (or one space for every three hotel rooms) for each of the remaining rooms. Hotel banquet space requires 1 space per each 35 square feet of floor area.

As indicated in Table E-2 on page E-8, the LAMC parking requirements for the existing University totals approximately 10,997 spaces. As previously stated, the University parking supply is approximately 11,816 spaces. Therefore, the existing University parking supply exceeds LAMC requirements.

(2) Parking Regulations

The development on the campus and within the remainder of the Nexus Study Area is governed by the parking regulations in the Los Angeles Municipal Code. As shown in Table E-2, the USC University Park Campus (Subareas 1A, 1B, 2, and 3 in the USC Development Plan) currently exceeds the requirements set forth in the Municipal Code.

The Municipal Code also allows mixed-use projects to calculate their parking needs through a Shared Parking assessment. Some of the University-related projects, especially those on the north side of the campus, have been approved with Shared Parking analyses

Table E-2
Los Angeles Municipal Code Parking Requirements
for Existing Uses within the Project Site

Use	Required Parking
Subarea 1	
Core Campus Parking	7,332
Galen Center	2,052
University Gardens	73
Radisson Hotel	173
Tyler Building	24
USC Credit Union	60
Subtotal	*9,714*
Subarea 2	
3434 S. Grand Avenue	313
Subtotal	*313*
Subarea 3	
Century Apartments	174
La Sorbonne Apartments	25
Cardinal Gardens	242
University Village	529
Subtotal	*970*
Total	**10,997**

Source: University of Southern California, 2010.

that considered the parking patterns of the various land uses within the projects and the potential transit/walk-in customer base. These projects include the recently completed University Gateway student housing project on the northwest corner of Jefferson Boulevard and Figueroa Street and the upcoming USC Catholic Center on the southeast corner of Hoover Street and 32nd Street.

(3) Campus Parking Policies

As discussed above, the University provides a number of on-campus and off-campus parking structures and lots for staff, faculty, students and visitors. These lots are regulated by meters and permits and are enforced 24 hours per day, including weekends and holidays.

Some of the more desirable parking areas are designated as reserved spaces for individuals. These spaces are made available for a premium fee to members of the University community and are reserved 24 hours a day. The permits for these spaces are transferable between vehicles.

Designated areas have also been set aside for registered carpools and vanpools to encourage ridesharing for commuters. Permits for these spaces are available at a reduced rate.

Faculty, staff, and students may reserve parking permits on a semester or yearly basis through group lottery systems. The lottery system ensures a fair distribution of desirable parking spaces to each of the campus groups.

All permits sold are valid only for the lot or structure named on the permit. Other than permits for reserved spaces, the permits are registered for a specific vehicle and must be affixed to the windshield of the vehicle at all times.

Daily parking permits are sold at some locations, generally for $8 per day. Semester permits range from $230 for the Parking Center to $414 for the on-campus lots and structures.

3. Environmental Impacts

a. Significance Thresholds

Parking impacts are no longer considered significant under Appendix G of the CEQA guidelines. However, an analysis of parking impacts using the former guidelines was conducted and is provided here for information. The City of Los Angeles CEQA Thresholds Guide, which has not yet been updated to reflect the elimination of parking from the list of potential environmental impacts, stated that a project would be considered to have a significant impact on parking if the project provides less parking than needed as determined through an analysis of the project's parking demand.

b. Project Impacts as Set Forth in the Draft EIR

The projected parking demand for the proposed USC Development Plan Project was calculated separately for the following two categories of proposed land uses:

- **University Uses:** This category includes the proposed uses of the proposed Project directly related to University operations and includes academic buildings, University buildings, faculty offices, on-Campus student housing, etc. This

includes the Academic/University uses parking demand, which is the demand generated by students, staff, faculty, and visitors (i.e., the total parking demand generated by the normal functions of the University). The University uses included as part of this category are:

- 1,500,000 square feet of academic uses in Subarea 1;
- 200 student beds in Subarea 1;
- 500,000 square feet of academic uses in Subarea 2;
- 500,000 square feet of academic uses in Subarea 3; and
- 5,200 student beds in Subarea 3.
- 250 faculty housing units.

- **University and Community Serving Uses:** This category includes the proposed uses of the proposed Project that would not be directly part of University operations but would serve patrons affiliated with the University as well as the community. These uses include the majority of the uses in Subarea 3:
  - 202,000 square feet of retail uses;
  - 45,000 square feet of restaurant uses;
  - 40,000 square feet of grocery store;
  - 43,000 square feet of (approximately 2,000 seats) cinema;
  - 20,000 square feet of fitness center;
  - 150 room (165,000 square feet) hotel which includes conference center;
  - 80,000 square feet of laboratory school/community educational academy (540 seats); and

(1) University Uses Parking Demand

Parking requirements attributable to the proposed Project's University uses future growth and development (which includes the proposed academic/University uses in Subareas 1, 2, and 3 as well as proposed student housing) were based on an assessment of the actual parking demand on Campus as generated by its students, staff, faculty, and visitors. To accomplish this, it was necessary to develop an understanding of the population groups that make up the total demand for parking generated on Campus and its

relationship to various metrics related to the University population. These population groups include:

- Number of undergraduate and graduate students;
- Number of faculty;
- Number of staff;
- Number of contract employees; and
- Number of daily visitors.

The students were further divided into the following undergraduate and graduate student subgroups:

- Residing on-Campus;[6]
- Residing near Campus;[7] and
- Commuter.

Parking demand rates for each of the aforementioned population segments and subgroups were derived from the detailed USC University Park Campus Parking and Transportation Study (Kaku Associates, 2006), which is available in Appendix B. The study involved the collection of an extensive amount of relevant materials, including Campus population estimates by type (e.g., students, staff, faculty), empirical data regarding existing parking supply and utilization on and near the Campus, travel and parking behavioral characteristics of the existing population (e.g., mode of travel, time of arrival/departure, parking location, absentee rate, etc.). This data was used to develop a parking demand model that would allow peak parking demand estimates to be made based on the population of the University. A separate rate was derived for students living on Campus, students living near Campus, Campus visitors, commuter students, and faculty and staff. These rates, which were further simplified to the following three main categories and are shown in Table E-3 on page E-12:

- Students living on and near Campus including demand from Campus visitors;

[6] *Residing on-Campus is defined as students living in University-owned housing in Subareas 1 and 3.*

[7] *Residing near Campus is defined as students living in University-owned and non-University owned residential uses located within ½ mile from Campus in ZIP codes 90007, 90037, and 90089.*

Table E-3
Parking Demand Rates for University Uses

University Population	Parking Rate
Students residing on or near Campus [a]	0.24 space per student
Commuter Students	0.48 space per student
Staff	0.51 space per staff member

[a] *The 0.24 rate per student includes parking demand for visitors and parking demand generated from students residing on or near Campus.*

Source: USC University Park Campus Parking and Transportation Study, Kaku Associates 2006.

- Commuter students; and
- Faculty and staff.

The future parking demand for the University uses is based on the following set of assumptions that are intentionally conservative (i.e., estimate a demand that exceeds the true demand):

1. The three parking demand rates are applied to the future (2030) University population projections of faculty and staff, undergraduate students, and graduate students in the Year 2030 to estimate the University uses parking demand for the entire Campus.[8]

2. The percentage of students that live near Campus will remain the same as current conditions.

3. The number of students that live on Campus will increase with the addition of the increase in student housing in Subarea 1 (200 beds) and Subarea 3 (5,200 beds). Any increase in students that live on Campus that occupy the new student housing in Subarea 1 and Subarea 3 will reduce the number of commuter students.

4. The percentage of students that live on Campus that own a car would not change from surveyed conditions.

5. The percentage of visitors, which is based on students living on or near Campus, will remain the same as in surveyed conditions.

[8] *A description of the existing University parking supply is provided in Table D-1, above.*

Parking would be provided to meet Project needs based on parking occupancy studies that identify required parking rates for the University population and various uses. The University would utilize a parking demand model that assesses parking demand based on parking studies and tracks the parking available within the Campus parking facilities. Under this model, adequate parking would be provided through a shared parking "pool" approach.

Parking for buildings within Subareas 1 and 2 would be provided at the following rates:

- 0.24 spaces per full time equivalent (FTE) student residing in ZIP codes 90007, 90089, and 90037,
- 0.48 spaces for all other FTE students, and
- 0.51 spaces for all FTE employees.

Table E-4 on page E-14 includes a summary of the parking requirements set forth by the proposed Project for Subarea 3A.

These parking requirements would differ from current LAMC parking requirements and reflect the projected parking demand rate for the proposed development (based on current parking patterns within the study area).

A reduction in the cited parking requirements may be allowed if the parking occupancy surveys indicate parking demand patterns within the study area have changed enough that a reduced parking rate would still provide adequate parking. However, in no case would the reduction exceed 20 percent of the minimum parking requirements of the proposed Project. Parking for any future projects in Subarea 3B would be provided in accordance with the parking requirements specified in the LAMC.

Parking required by individual Project developments within Subareas 1, 2, and 3A may be located: (1) at any location within the Project site in accordance with the Pooled Parking Inventory that is to be maintained by the City of Los Angeles Planning Department; or (2) within 1,500 feet of the boundaries of Subarea 1, including areas outside of the Project site; or (3) more than 1,500 feet of the boundaries of Subarea 1, including areas outside of the Project site, solely in the area bounded on the east by Figueroa Street, on the south by Martin Luther King Jr. Boulevard, and on the west by Vermont Avenue. Required parking may be located outside of the Project site as specified above, provided that a covenant, lease, license or other arrangement is executed to the satisfaction of the Director of Planning, and further, that a shuttle between such parking areas outside of the Project site and the Project site is operated on a regular schedule.

Table E-4
Proposed Parking Requirements for Subarea 3A

Use	Parking Requirement
Academic and University uses	0.24 space per full time equivalent (FTE) student residing in Zip Codes 9007,90089, and 90037; 0.48 space for all other FTE students; 0.51 spaces for all FTE employees
Hotel	
Guest Rooms	0.5 space per room
Banquet/Meeting Rooms	4.5 spaces per 1,000 square feet of floor area
Faculty/Staff Housing	1.5 spaces per unit
Guest Parking for Faculty/Staff Housing	0.15 spaces per unit
Movie Theater	0.05 spaces per seat
Restaurant/Bar	10 spaces per 1,000 square feet of floor area
Retail	3 spaces per 1,000 square feet of floor area
Lab/School	1 space per classroom

Source: University of Southern California, 2010.

(a) University Uses Parking

Parking requirements attributable to future University uses were based on an assessment of the actual parking demand of Campus as generated by its students, staff, faculty, and visitors. While the University currently has a policy of no growth for undergraduates, in light of historic University growth, it is anticipated that by the year 2030, the University community will be composed of approximately 17,800 undergraduate students, 18,200 graduate students, 1,900 faculty members, and 7,000 staff workers, as shown in Table E-5 on page E-15. Additionally, the number of daily visitors (including contract employees) is anticipated to be approximately 2,500. When compared with recent 2009 total student enrollment and staffing, this represents an annual percentage increase of approximately 0.9 percent, with a cumulative increase of approximately 1,777 undergraduate students, 3,395 graduate students, 168 faculty members, and 1,284 staff workers over a 21-year period. In addition, it is anticipated that by 2030, the number of daily visitors to the Campus (including contract employees) would increase by approximately 1,100 from 2009.

To analyze parking demand, the geographical distribution of the University's population (2030) was projected. Table E-6 on page E-16 indicates the changes in geographical distribution of student residents between 2009 and 2030.

Table E-5
Year 2030 University Population Growth Projections

Population	Year 2009 Population	Year 2030 Population	Change
Undergraduate Students	16,023	17,800	1,777
Graduate Students	14,805	18,200	3,395
Faculty	1,732	1,900	168
Staff	5,716	7,000	1,284
Visitors (including contract employees)	1,400	2,500	1,100

Source: University of Southern California, 2009.

The parking rates provided in Table E-6 were applied to the proposed Project's estimated 2030 net increase in University population numbers (as categorized by geographical distribution). As indicated in Table E-7 on page E-17, the proposed Project's University uses would result in an additional parking demand of 1,794 spaces over the planning horizon (2009-2030). To adequately satisfy this incremental parking demand from University growth, Mitigation Measure E-1 would be implemented to ensure that the University would monitor the population of each University population group on an annual basis and provide supply based on the counted population using the established parking rates. It should also be noted that the calculated supply represents the minimum obligation of the University in a given year. However, the University may choose to provide more parking to account for economies of scale (i.e., build a new parking structure).

Thus, parking impacts associated with University uses would be less than significant with mitigation.

(b) University and Community Serving Uses Parking Demand (Subarea 3)

As shown in Table E-8 on page E-17, a total of 2,436 parking spaces are required to be provided per LAMC parking requirements. However, the LAMC also allows the peak parking demand of a mixed-use project to be calculated using a shared parking analysis.

A shared parking analysis was conducted pursuant to LADOT guidelines for the proposed Project's University and Community uses that are anticipated to be located in Subarea 3. The shared parking concept is based on the understanding that each land use type or development venue has its own separate parking demand characteristics. Shared parking occurs when two or more land uses (a retail store, office, restaurant, etc.) can share the same parking supply by taking advantage of variations in parking demand by time of day. Shared parking applies to mixed-use projects involving a combination of land uses that have alternate peak demands occurring:

Table E-6
Changes in Distribution of Student Residents as a Result of Proposed New On-Campus Housing

Component	Year 2009		Project Housing Beds	Year 2030 with proposed Project Housing Beds			Net Increase
	%	Number of Students		%		Number of Students	
Undergraduate Students		**16,023**				**17,800**	**1,777**
On Campus [a]	75.9%	4,447	998 [b]	78.7%	30.6%	5,445	998
Near Campus		7,714			48.1%	8,570	856
Commute	24.1%	3,862		21.3%	21.3%	3,785	-77
Graduate Students		**14,805**				**18,200**	**3,395**
On Campus [a]	26.8%	210	3,240 [c]	44.3%	19.0%	3,450	3,240
Near Campus		3,758			25.3%	4,620	862
Commute	73.2%	10,837		55.7%	55.7%	10,130	-707

[a] *Actual student beds on Campus per the USC website. Total number of on-Campus and near Campus students still consistent with surveys conducted as part of the Parking and Transportation Survey Study (Kaku Associates, March 2006).*

[b] *The proposed Project would provide approximately 2,160 undergraduate beds and remove 1,162 existing beds in Subarea 3. Therefore, the net is 998 undergraduate beds.*

[c] *The proposed Project would provide approximately 3,240 graduate beds.*

Source: Fehr & Peers, Parking Study for the University of Southern California Development Plan, 2010.

Table E-7
Proposed Project's Net Increase in Academic/University Uses Parking Demand

University Population Group	Net Increase (between 2009-2030)	Parking Demand Rate	Increased Parking Demand
Students Residing On or Near Campus	5,956[a]	0.24 space per student	1,430 spaces
Commuter Students	-784[b]	0.48 space per student	-377 spaces
Staff and Faculty	1,452	0.51 space per staff	741 spaces
TOTAL NET INCREASE IN ACADEMIC/UNIVERSITY USESPARKING DEMAND			**1,794 spaces**

[a] *As indicated in Table E-6, 5,956 = 998 on-Campus undergraduates + 856 near-Campus undergraduates + 3,240 on-Campus graduates, and 862 near-Campus graduates.*

[b] *As indicated in Table E-6, (-784) = (-77) commuter undergraduates + (-707) commuter graduates.*

Source: Fehr & Peers, 2010.

Table E-8
LAMC Parking Requirements for University and Community Serving Uses in Subarea 3

Use	Floor Area	Code Parking	Code Section
Retail/commercial	307,000 sf	614	12.21A.4(x)(3)6
Movie Theater	2,000 seats (43,000 sf)	400	12.21A.4(e)
Faculty Units	250 units [a]	450	12.21A.4(a)
Hotel	150 keys	75	12.21A.4(b)
Conference Areas	30,000 sf	857	12.21A.4(e)
Laboratory School & Community Educational Academy	80,000 sf	40 [b]	12.21A.4(f)
	Total	**2,436**	

[a] *Consists of 100 one bedroom units, and 150 two and three bedroom units.*

[b] *Assumes 40 classrooms. If the school has a junior high school component, additional parking may be required at a rate of 1 space for every 5 fixed seats in an auditorium/assembly area, or if no fixed seats, at a rate of 1 space for each 35 square feet of floor area per LAMC §12.21A.4(e).*

Source: Fehr and Peers, 2010.

- At different times of day (e.g., evenings versus daytime);
- On different days of the week (e.g., weekend versus weekday); and

- In different months or seasons of the year.

In order to conduct a shared parking analysis, the following base assumptions were made:

1. Parking provided for student housing would not be part of the Subarea 3 University and Community serving uses parking analysis. It is included in the University uses parking demand discussed above. However, this parking supply could be located partly or wholly within Subarea 3.

2. Parking provided for faculty units would be included in the Subarea 3 supply, but would not be available for shared use, and is assumed reserved for faculty residents. The guest parking for the faculty housing units would be part of the shared supply.

3. The considerations used in the trip generation analysis for proximity and walk-in patronage to the University and Community uses generated by the various elements of the University population apply to the shared parking analysis. The following percentage of patronage is assumed to be from the University population and, therefore, would be walk-ins:

    - 25 percent for retail;
    - 30 percent for restaurant;
    - 40 percent for the cinema;
    - 75 percent for the fitness center; and
    - 25 percent of the conference center patronage is assumed to be from the hotel as walk-ins.

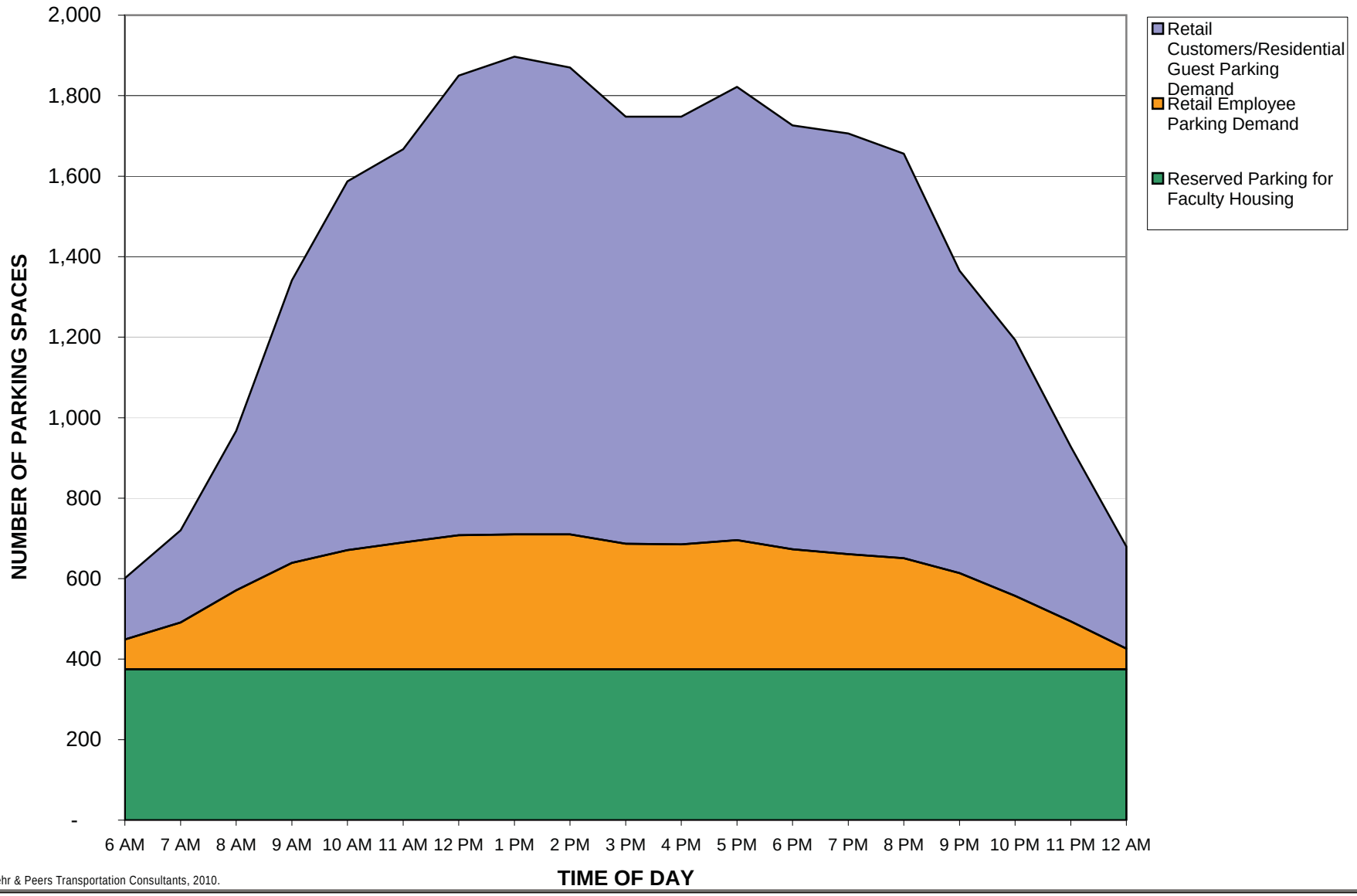
4. The demand ratios for the weekday and weekend parking are based on recommendations and data collected by the Urban Land Institute (ULI) and shared parking guidelines prepared by the Institute of Transportation Engineers (ITE).

For the proposed Project's University and Community uses, parking rates from ITE and the ULI were applied to these uses. Table E-9 on page E-19 provides a summary of the shared parking analysis for Subarea 3. This concept is shown graphically in Figure E-2 on page E-20, which illustrates the hourly parking demand for Subarea 3, differentiating between the visitors to the commercial and residential uses, the employees of the commercial uses, and the residents.

Table E-9
University and Community (Subarea 3) Development Shared Parking Demand Summary
(Peak Month: December – Peak Period: 1 P.M., Weekend)

Land Use	Project Data		Weekday					Weekend					Weekday			Weekend		
	Quantity	Unit	Base Rate	Mode Adj.	Non-Captive Ratio	Project Rate	Unit	Base Rate	Mode Adj.	Non-Captive Ratio	Project Site	Unit	Peak Hr Adj. 1 P.M.	Peak Mo Adj. December	Estimated Parking Demand	Peak Hr Adj. 1 P.M.	Peak Mo Adj. December	Estimated Parking Demand
Community Shopping Center (<400 ksf)	242,000	sf GLA	2.90	1.00	0.75	2.18	/ksf GLA	3.20	1.00	0.75	2.40	/ksf GLA	1.00	1.00	527	0.95	1.00	551
Employee			0.70	1.00	1.00	0.70	/ksf GLA	0.80	1.00	1.00	0.80	/ksf GLA	1.00	1.00	169	1.00	1.00	194
Family Restaurant	45,000	sf GLA	9.00	1.00	0.70	6.30	/ksf GLA	12.75	1.00	0.70	8.93	/ksf GLA	0.90	1.00	255	0.85	1.00	342
Employee			1.50	1.00	1.00	1.50	/ksf GLA	2.25	1.00	1.00	2.25	/ksf GLA	1.00	1.00	68	1.00	1.00	101
Cineplex	2,000	seats	0.19	1.00	0.60	0.11	/seat	0.26	1.00	0.60	0.16	/seat	0.45	0.23	24	0.45	0.67	94
Employee			0.01	1.00	1.00	0.01	/seat	0.01	1.00	1.00	0.01	/seat	0.60	0.50	6	0.60	0.80	10
Health Club	20,000	sf GLA	6.60	1.00	0.25	1.65	/ksf GLA	5.50	1.00	0.25	1.38	/ksf GLA	0.70	0.90	21	0.30	0.90	7
Employee			0.40	1.00	1.00	0.40	/ksf GLA	0.25	1.00	1.00	0.25	/ksf GLA	0.75	1.00	6	0.50	1.00	3
Hotel-Business	150	rooms	1.00	1.00	1.00	1.00	/rooms	0.90	1.00	1.00	0.90	/rooms	0.55	0.67	55	0.55	0.67	50
Convention Space (>50 sq ft/guest room)	30,000	sf GLA	20.00	1.00	0.75	15.00	/ksf GLA	10.00	1.00	0.75	7.50	/ksf GLA	1.00	0.60	270	1.00	0.60	135
Employee			0.25	1.00	1.00	0.25	/rooms	0.18	1.00	1.00	0.18	/rooms	1.00	1.00	38	1.00	1.00	27
Residential, Rental, Shared Spaces	250	units	0.00	1.00	1.00	0.00	/unit	0.00	1.00	1.00	0.00	/unit	0.70	1.00	0	0.70	1.00	0
Reserved	2	sp/unit	1.50	1.00	1.00	1.50	/unit	1.50	1.00	1.00	2.00	/unit	1.00	1.00	375	1.00	1.00	375
Guest	250	units	0.15	1.00	1.00	0.15	/unit	0.15	1.00	1.00	0.00	/unit	0.20	1.00	8	0.20	1.00	8
Reserved		sp/unit	0.00	1.00	1.00	0.00	/unit	0.00	1.00	1.00	0.00	/unit	1.00	1.00	0	1.00	1.00	0
Guest		units	0.10	1.00	1.00	0.10	/unit	0.10	1.00	1.00	0.00	/unit	0.20	1.00	0	0.20	1.00	0
														Customer	1,160			1,187
														Employee	287			335
														Reserved	375			375
														Total	**1,822**			**1,897**

Base Rate - *the maximum parking demand for a given land use before taking into account travel mode and non-captive ratios.*
Mode Adjustment - *the percentage of visitors who drive to the site rather than use alternative transportation such as transit, walking, or bicycling.*
Noncaptive Ratio - *the percentage of visitors who are new customers to the overall site.*
Project Rate - *the product of the Base Rate, Mode Adjustment, and Noncaptive Ratio and represents the peak parking demand of the land use.*
Peak Hour Adjustment - *the peak parking demand experienced at 1 P.M. as a percentage of the Project Rate.*
Peak Month Adjustment - *the peak parking demand experienced in December as a percentage of the Project Rate.*
Source: Fehr & Peers, 2010.



Source: Fehr & Peers Transportation Consultants, 2010.

Figure E-2
Hourly parking Demand for SA3

The total peak parking demand for the University and Community uses in Subarea 3, using the shared parking concept for both weekdays and weekends, would occur at 1:00 P.M. on weekends in December. Under these conditions, the peak parking demand would be 1,897 spaces. On weekdays the peak demand would be 1,822 spaces and would also occur at 1:00 P.M. The parking demand figures for the weekend, the higher of the two, are based on an estimate of 1,187 spaces for customers/guests, 335 spaces for employees, and 375 spaces reserved for residents for a total of 1,897 spaces. This shared parking demand represents a 22 percent reduction when compared to a direct application of the LAMC parking requirements for free-standing individual land uses as shown in Table E-8. In other words, the land uses included in Subarea 3 would require 2,436 parking spaces if they were all built on separate, free-standing parcels. Given the location of the proposed Subarea 3 project, with its high propensity for walk-in traffic and visitation to multiple destinations on the same trip, the project does not need as much parking as it would were it built as multiple free-standing, independent, suburban developments. The Subarea 3 portion of the project is requesting the provision of 1,897 spaces – a 22% reduction from the requirements of the LAMC (1,897/2,436 = 78%).

The parking for Subarea 3 for University and Community uses and the parking for University uses should be viewed as two separate systems with respect to estimating parking demand. However, the University could choose to co-locate some of the parking supply, (for example, by providing some of the University parking supply within Subarea 3).

(2) Future Parking Supply

The USC Development Plan calls for the University to monitor the parking demand as the Plan is implemented:

Mitigation Measure -1: The Applicant shall develop and implement an annual monitoring process that establishes the University population for each year and the corresponding calculation of parking demand using the rates within the Parking Study prepared for the proposed Project. The Applicant would be responsible for constructing and/or securing sufficient parking to satisfy the calculated demand prior to the issuance of certificate of occupancy permits for new Project uses.

(a) University Uses

At the completion of the USC Development Plan, the University-related parking supply would maintain a minimum of the 11,816 current owned and leased spaces and add 1,794 spaces to meet the demand of the Academic/University uses portion of the USC Development Plan growth. As indicated in Table E-7 on page E-17, the proposed Project's University uses would result in an additional parking demand of 1,794 spaces over the planning horizon (2009-2030). To adequately satisfy this incremental parking demand from

University growth, Mitigation Measure -1 would be implemented to ensure that the University would monitor the population of each University population group on an annual basis and provide supply based on the counted population using the established parking rates. It should also be noted that the calculated supply represents the minimum obligation of the University in a given year. However, the University may choose to provide more parking to account for economies of scale (i.e., build a new parking structure).

Thus, parking impacts associated with University uses would be less than significant with mitigation.

(b) University and Community Uses

The estimated peak parking demand for the proposed University and Community uses in Subarea 3 is 1,897 spaces. Therefore, a parking supply of 1,897 would be needed to satisfy the peak parking demand. Also of note is that this amount of parking would exceed Subarea 3's peak weekday parking demand of 1,822 spaces. Under the shared parking arrangement, parking for the proposed University and Community uses in Subarea 3 should be provided at the rates set forth in Table E-4 on page E-14. Application of these rates would result in a parking supply that would satisfy the peak parking demand for the proposed Project.

With compliance with the recommended parking rates set forth, parking impacts associated with University and Community uses would be less than significant.

c. Level of Significance After Mitigation

With implementation of the mitigation measure above, Development Project-level impacts on parking would be less than significant. In addition, cumulative impacts to parking would also be less than significant.

4. Impact of Project Parking Demand on the Nexus Study Area

The future parking supply in the USC Development Plan area is projected to accommodate the full growth in University-related activity as well as the new non-University development in Subarea 3. As such, the parking demand from the University is not expected to impact the Nexus Study Area.

Some University-related parking does occur outside of the USC Development Plan area under current conditions. This is especially true of the on-street parking in the area to the north of campus.

Recognizing the unique situation of on-street parking in their neighborhood, USC had initiated discussions with the City of Los Angeles Department of Transportation (LADOT) to improve existing conditions for the neighborhood that would prioritize parking for non-USC residents over USC residents who do not reside in this area and still allow for short-term parking for neighborhood guests/visitors. The Applicant intends to support the City in developing a preferential parking district in the subject neighborhood[4] which takes into account the unique conditions of this neighborhood. Establishing a preferential parking district will require the support of the neighborhood.

The analyses and conclusions presented in the Draft EIR regarding potential parking impacts within the USC Development Plan area fully identify the potential impacts within the Nexus Study Area. The remaining portions of the Nexus Study Area outside of the USC Development Plan area are not expected to be impacted by the USC Development Plan and thus do not change the analysis or conclusions presented in the Draft EIR.

[4] *Subject neighborhood is located north of the campus bound by Adams Boulevard in the north, 30th Street in the south, Vermont Avenue in the west, and Hoover Street in the east.*

Section F. Alternative Transportation

1. Introduction

This section of the Nexus Study sets forth information regarding alternative transportation in the Draft EIR for the USC Development Plan. The scope of this parking section of the Nexus Study exceeds the required scope under the California Environmental Quality Act (CEQA). This section includes an assessment of existing alternative transportation in the Nexus Study Area, a description of regulations and plans regarding alternative transportation, the analysis of impacts on alternative transportation associated with the USC Development Plan as presented in the Draft EIR, and a comparison of impacts identified within the Draft EIR with potential impacts in the Nexus Study Area. As demonstrated by the information herein, the potential CEQA impacts of the Proposed Project within the Nexus Study Area are fully accounted for in the Draft EIR. In addition, this section of the Nexus Study does not contain any new analyses or mitigation measures for the Project that are required by CEQA.

Figure F-1 on page F-2 shows the boundaries of the Nexus Study Area compared to the Traffic, Transportation, and Parking areas covered in the DEIR. As can be seen, the DEIR analysis of transportation and alternate modes covered the majority of the Nexus Study Area, including the entirety of the area impacted by the USC Development Plan. The area south of Martin Luther King Jr. Boulevard to Vernon Avenue—stretching one-half mile beyond the boundaries studied in the DEIR—would not be impacted by the USC Development Plan.

2. Existing Conditions Assessment

This section provides a description of the existing alternative transportation services and facilities within the Study Area. These Alternative services include public transit services, USC Shuttle services, bicycle and pedestrian facilities, and other alternative modes of transportation available such as carpool, carshare, etc.

a. Existing Transit Service in the Study Area

The Project area currently benefits from three forms of mass transportation services: (1) public transit services that link the Campus to downtown and other locations in the

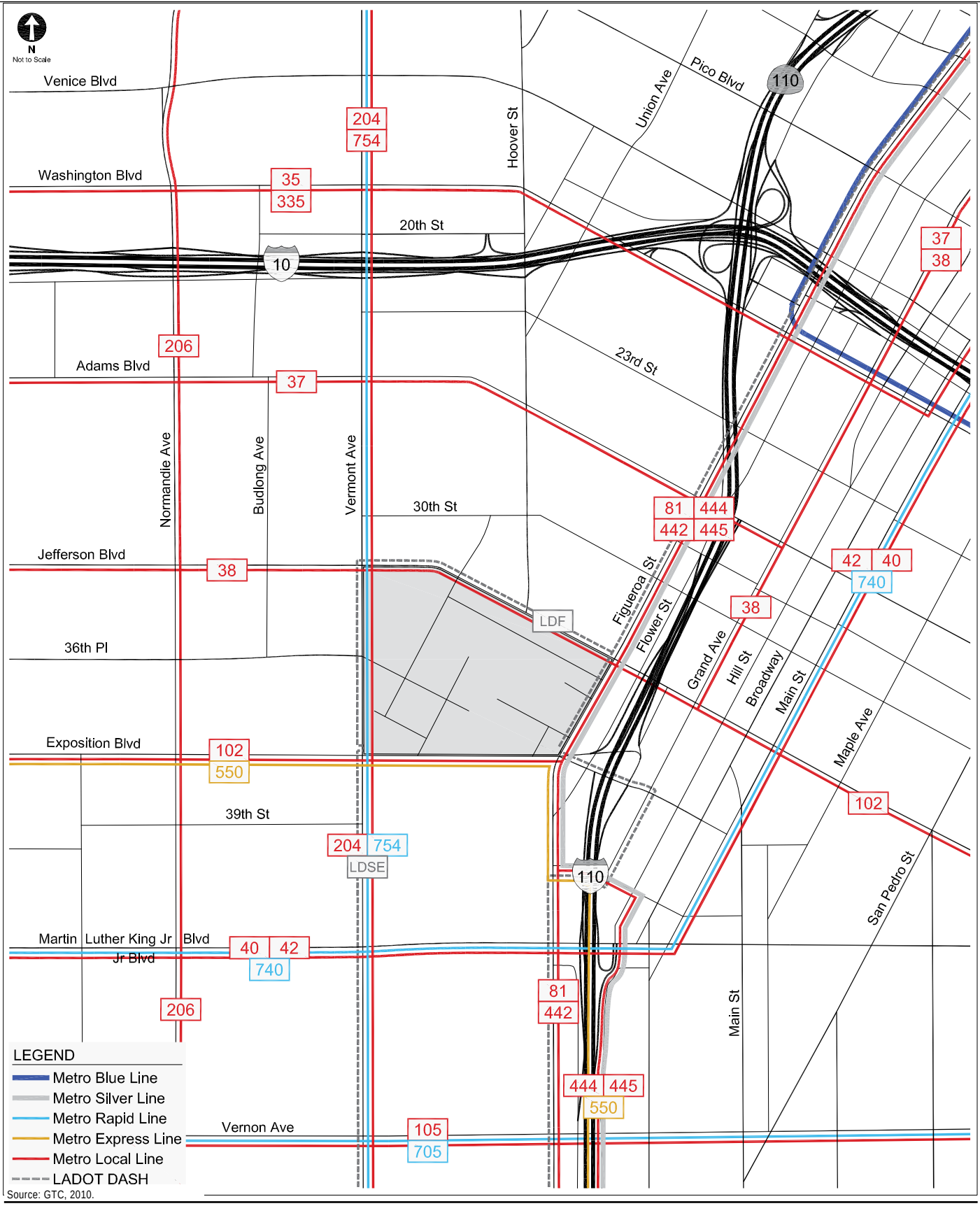


Figure F-1
Transit service in the vicinity

greater Los Angeles area, (2) the Campus tram system that links points on the Campus to neighboring areas, (3) and the Campus' rideshare program, which encourages the use of mass transportation options with a variety of incentives. These services are described in further detail as follows:

(1) Existing Public Transit Services

The Project area is currently served by a number of bus routes operated by Metro and Los Angeles Department of Transportation (LADOT) Downtown Area Shuttle (DASH). A total of 11 public bus routes are provided in the vicinity of the Campus. Metro provides nine of the 11 routes, while LADOT provides the remaining routes. The bus routes running in the vicinity of the USC UPC Campus are illustrated in Figure F-1. The following bus lines currently serve the study area:

- Metro Line 35/335: This line travels between the West Los Angeles Transit Center and Downtown Los Angeles. This line travels east and west along Washington Boulevard in the Study Area.

- Metro Line 37: This line travels between the West Los Angeles Transit Center and the Los Angeles Civic Center. This line travels east and west along Adams Boulevard in the Study Area.

- Metro Line 38: This line travels between the West Los Angeles Transit Center and the California State University of Los Angeles Busway Station. This line predominantly travels east and west across the across the Campus, serving Jefferson Boulevard.

- Metro Line 40/740: This line travels between Redondo Beach and Union Station in Los Angeles. This line travels east and west along Martin Luther King Jr. Boulevard and north and south along Broadway in the Study Area.

- Metro Line 42: This line travels between Los Angeles International Airport and Union Station in Los Angeles. This line travels east and west along Martin Luther King Jr. Boulevard and north and south along Broadway in the Study Area.

- Metro Line 81: This express line travels between the Harbor Freeway/Interstate 110 (I-110) station to downtown Los Angeles. These lines travel north and south on Figueroa Street in the Project area.

- Metro Line 102: This line travels between Baldwin Village and South Gate. This line predominantly travels east and west in the Project area, serving Jefferson Boulevard.

- Metro Line 105/705: This line travels between the cities of West Hollywood and Vernon. This line travels east and west along Vernon Avenue in the Study Area.

- Metro Line 204/754: These two lines travel between Los Feliz and Athens. These lines travel north and south on Vermont Avenue in the Project area. Metro 754 is a Bus Rapid line with limited stops, one of which serves the Campus at the Jefferson Boulevard and Vermont Avenue intersection.

- Metro Line 206: This line travels between Athens and Hollywood. It travels north and south on Normandie Avenue in the Study Area.

- Metro Line 442: This line travels between South Bay Galleria Transit Center (Hawthorne) and Patsaouras Transit Plaza during weekday A.M. and P.M. peak hours by taking the Harbor Transitway (I-110). The line travels north and south on Figueroa Street in the Project area.

- Metro Line 444: This express line travels between Rancho Palos Verdes and Patsaouras Transit Plaza by taking the Harbor Transitway (I-110). The line travels north and south on Figueroa Street in the Project area.

- Metro Line 445: This express line travel between San Pedro and Patsaouras Transit Plaza by operating on the Harbor Transitway/I-110. The line travels north and south on Figueroa Street in the Project area.

- Metro Line 446: This express line travel between San Pedro via Pacific Avenue/Wilmington/Carson and Patsaouras Transit Plaza by operating on the Harbor Transitway/I-110. The line travels north and south on Figueroa Street in the Project area.

- Metro Line 550: This express line travels between San Pedro and West Hollywood by operating on the Harbor Transitway (I-110). The line travels east and west on Exposition Boulevard in the Project area.

- LADOT Dash Route F: This line travels between the Financial District and Exposition Park/USC. This line encircles the entire Campus serving Figueroa Street, Vermont Avenue, Exposition Boulevard and Jefferson Boulevard. The service is available from 6:30 A.M. to 6:30 P.M. with a frequency of 10 minutes Monday through Friday.

- LADOT Dash Southeast: This line travels between Exposition Park/USC and Vernon Avenue. This line travels east and west on Exposition Boulevard in the study area.

Bus stops in the Project area generally provide bench seating for at least 3 patrons, and many provide a full covered shelter. A small number of stops provide neither shelter nor seating. Bicycle parking is not provided at the bus stops in the study area.

(2) Existing University Tram and Campus Cruiser Program

Transit service within the USC community is provided by a tram service operated by Trojan Transportation. This service is not open to the general public. Proof of USC association (i.e., USC Identification) may be required before boarding Campus transit services.

Twenty-one active Campus tram routes are provided during the 2009 spring and fall semesters. The number of active routes during the summer is reduced in response to decreased Campus activity. Ten of the 21 routes serve the Campus. The major routes serving the Campus and area to the north are Routes A, B, C, and D, which provides approximately 50 stops. A fifth route connects the Campus to the University Parking Center. These five major routes are illustrated in Figure F-2 on page F-6 and are described in further detail below.

- Route A: The tram travels between Leavey Library and Graduate Fine Arts Building in a clockwise direction, which is operated from 6:15 A.M. to 9:45 P.M. (Monday through Friday). The headway varies throughout the day and is 15 minutes from 8:30 A.M. to 2:15 P.M. and 8:30 P.M. to 9:45 P.M., and 30 minutes during other operating hours. Based on field observations, Route A currently has the highest number of passenger boardings among the three tram services (Route A, B, and C) serving the residential area around Campus.

- Route B: The tram travels between Leavey Library and 3030 Shrine Place from 6:15 A.M. to 9:45 P.M. The tram service is in operation Monday through Friday with a frequency of 15 minutes during the peak hour and 30 minutes during the off-peak hour, similar to Route A.

- Route C: The tram service starts from Leavey Library and ends at Mount Saint Mary's (23rd Street and Estrella Place) with a headway of 20 minutes. The service is provided from 10:00 P.M. to 5:40 A.M. seven days a week.

- Route D: The tram service begins at Leavey Library and ends at the 901 Lounge with a headway of 20 minutes. The service is available between 10:00 P.M. and 5:40 A.M. seven days a week.

- Parking Center Route: The tram service is available from 6:30 A.M. to 11:00 P.M. (Monday through Friday). It travels between Leavey Library and Carol Little Building. The service is operated by one vehicle, which leaves University Parking Center every 20 minutes.

Source: Fehr & Peers Transportation Consultants, 2009.

Figure F-2

USC Campus Tram service

The other five Campus routes are regional links:

- An intercampus route which travels between the Campus and the Health Sciences Campus (HSC) with tram service available 7:00 A.M. to 8:30 P.M. (Monday through Friday).

- A route which connects the Campus to Bunker Hill downtown, operating between 7:30 A.M. to 4:30 P.M. (Monday through Friday) with headways of 60 minutes throughout the day.

- A University shuttle service that links the Campus to Marina del Rey from 8:00 A.M. to 5:00 P.M. (Monday through Friday) with headways of 90 minutes.

- A route which links the Campus to Union Station. This tram operates between 7:00 A.M. to 9:00 P.M. (Monday through Friday) with a frequency of 5 minutes/ 10 minutes during the P.M. peak hour, and 60 minutes during the morning peak and off-peak hour.

- A late night fixed-route service known as the "Cruiser Express" which operates 10:00 P.M. to 2:35 A.M. seven days a week. The Cruiser Express uses 24 Campus Cruiser vehicles, including eight vans, one ADA equipped van and 14 compact cars. The boundaries of the Campus Cruiser program have been established at approximately a one-mile radius from the center of Campus. Average ridership during the fall and spring semester is approximately 605 passengers per weeknight, with a peak of 717 passengers on a Sunday night.

The remaining 11 routes are regional links. Six of the 11 routes serve the USC Health Sciences Campus, two routes serve the Downtown Health Center, two routes serve Union Station, and one route serves Alhambra.

As noted, hours of operation vary by route and time of year. All rides for USC students, faculty, staff, and guests are free of charge.

(a) Existing Campus Rideshare Programs

Trojan Transportation has organized an extensive vanpool system with 21 drop-off and pick-up locations throughout the region. Trips range from 12.5 miles from Torrance to 69.6 miles to Moreno Valley. The monthly rate varies from $108.00 a month to $193.00 a month, and is the most subsidized mode of rideshare at USC. In addition to the vanpool system, Trojan Transportation has organized a carpool program, a disability access to road transportation (DART), and Zipcar car-sharing service for USC students, faculty, and staff.

(3) Existing Bicycle and Pedestrian Facilities

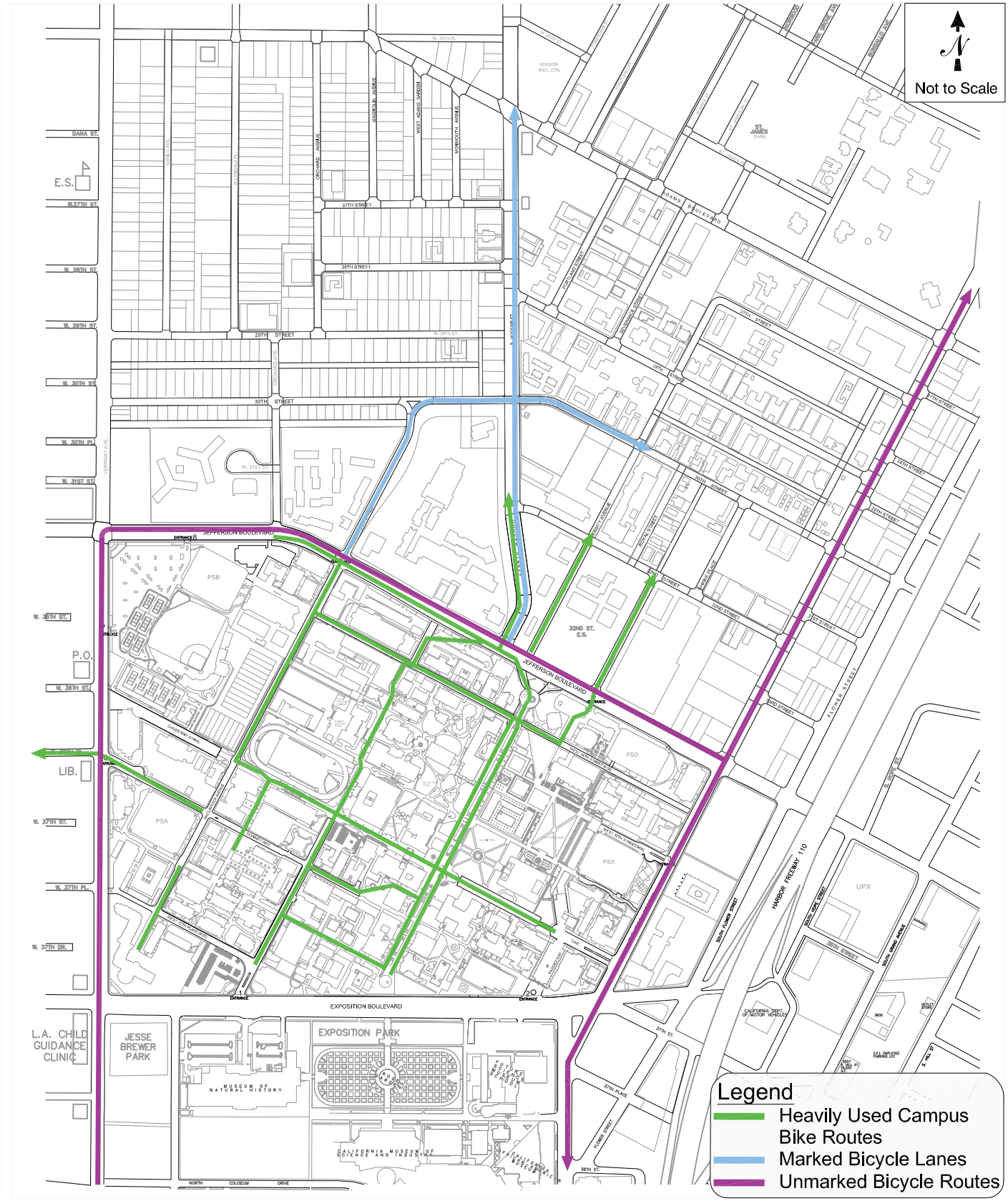
(a) Existing Bicycle Facilities

As shown in Figure F-3 on page F-9, the University has a network of bicycle routes throughout the Campus that connect to routes on the following perimeter roadways:

- Jefferson Boulevard – Unmarked bicycle route shared with curb side travel lanes. Marked bicycle lanes are proposed for Jefferson Boulevard in the City of Los Angeles Bicycle Plan (Year 2009).
- Vermont Avenue – Unmarked bicycle route shared with curbside travel lanes.
- Figueroa Street – Unmarked bicycle route shared with curb side travel lanes.
- Hoover Street – Marked bicycle lanes.
- McClintock Avenue between Jefferson Boulevard and 30th Street – Marked bicycle lanes.
- 30th Street between Hoover Street and University Avenue – Marked bicycle lanes.
- Adams Boulevard between Vermont Avenue and Figueroa Street – Shared automobile/bicycle lane markings ("sharrows").

As part of the City of Los Angeles 2010 Bicycle Plan (City of Los Angeles, approved March 2011), the City has proposed the following improvements to the existing bicycle route network in its five-year plan:

- Restripe the existing roadway to provide marked bicycle lanes along Exposition Boulevard west of Vermont Avenue (funded improvement).
- Restripe the existing roadway to provide marked bicycle lanes along Martin Luther King Jr. Boulevard west of Figueroa Street (Priority 1 improvement)
- Extend existing bicycle route on Vermont Avenue south from 36th Street to beyond the study area (Priority 2 improvement).



Source: Fehr & Peers Transportation Consultants, 2009.

Figure F-3
USC Bicycle Routes

- Extend the bicycle path on Adams Boulevard west from Vermont Avenue (Priority 2 improvement).

The above improvements are expected to be implemented by Year 2016 under the approved 2010 Bicycle Plan.

Bicyclists and pedestrians can access the core Campus from the major gates described above as well as from the following locations listed below:

- Trousdale Parkway along westbound Exposition Boulevard
- Childs Way along southbound Figueroa Street
- Hellman Way along southbound Figueroa Street
- 34th Street along southbound Figueroa Street
- Trousdale Parkway along eastbound Jefferson Boulevard
- Driveways of Lot M and Lot V along eastbound Jefferson Boulevard

Bicycle and pedestrian access to/from Subarea 2 uses is provided via driveways located along 35th Street and Grand Avenue.

Bicycle and pedestrian access for Subarea 3 is provided from the following major access points:

- North leg of Intersection of McClintock Avenue and Jefferson Boulevard.
- The northwest corner of the intersection of Jefferson Boulevard and Hoover Street.
- Entrance located along northbound Orchard Avenue between Jefferson Boulevard and 30th Place.
- Entrance located along Hoover Street, south of 32nd Street.
- Entrances located along westbound Jefferson Boulevard between McClintock Avenue and Hoover Street.
- Pedestrians can also access Subarea 3 from various other minor entrances that are located along the perimeter.

Approximately 4,500 bicycle spaces are provided in racks located throughout the Campus. Additionally, the pedestrian and bicycle scramble phases at the intersections of McClintock Avenue & Jefferson Boulevard and Hoover Street & Jefferson Boulevard allow safe crossing of Jefferson Boulevard for bicycles without vehicular conflict.

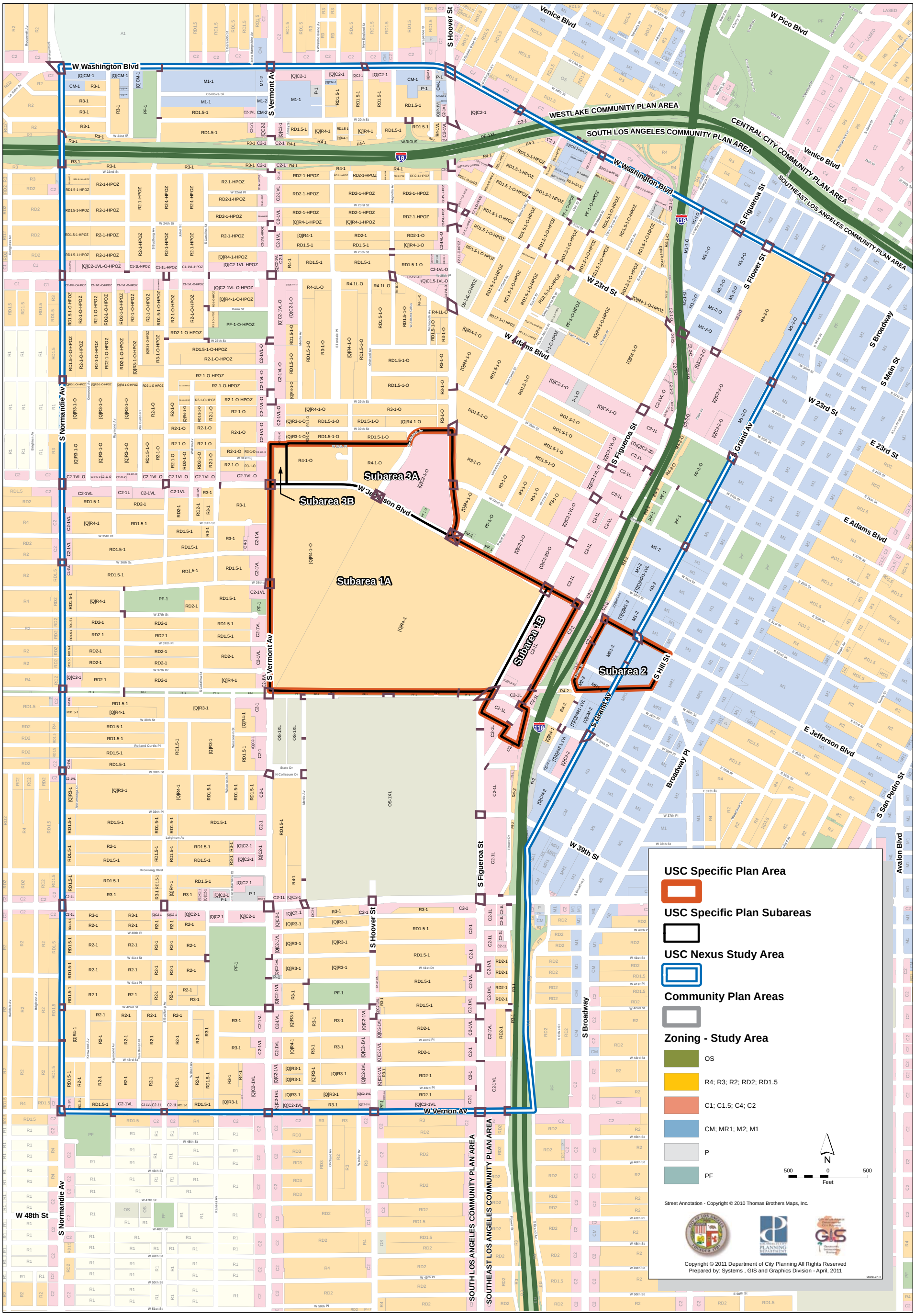
Although there are bicycle facilities planned in the future, there are no additional bicycle facilities within the Nexus Study Area beyond those shown in Figure F-3.

(b) Existing Pedestrian Facilities

Within the Nexus Study boundaries is a mature network of pedestrian facilities. Sidewalks line both sides of all arterials as well as most collectors and local streets within the Project area. Crosswalks and pedestrian push-button activation are provided at all major signalized intersections as shown in Figure F-4 on page F-12. However, some of the public sidewalk facilities are currently not in good condition. Public street sidewalks are broken or uneven from tree roots and general wear, presenting tripping hazards to pedestrians and skateboarders. The lack of comprehensive marked bicycle lanes along the streets results in many bicyclists using the sidewalks. Some public street sidewalks within the Project Area are too narrow to accommodate the variety and volume of pedestrian traffic.

Two intersections along Jefferson Boulevard, at McClintock Avenue and Hoover Street, offer a pedestrian scramble signal phase to completely separate pedestrian and automobile conflicts at the two major student crossings. In another effort to improve safety, USC has recently (September 2009) funded the design and installation of a pedestrian signal at the intersection of Hoover Street & 28th Street. USC is also working with LADOT in implementing various near-term pedestrian safety features including further improvements at the intersections of Hoover Street and McClintock Avenue along Jefferson Boulevard. These measures focus on pedestrian and vehicle visibility, increased intersection illumination, and better driver awareness through the length of the corridor. They also include the future closure of the south leg of the intersection of Hoover Street & Jefferson Boulevard and signal equipment upgrades.

The University provides pedestrian access to the Campus at all major campus entrances, as well as various pedestrian gates and driveways around the Campus border. The interior of the campus is primarily focused on pedestrian and bicycle access. Vehicular access is limited, and walking boulevards are generally wide, well-lit, and lushly planted.



Source: City of Los Angeles Planning Department, 2011.

matrix environmental

Figure F-4
Existing Crosswalks within Nexus Study

3. Regulations and Plans

a. Los Angeles General Plan Framework and Community Plans

The General Plan Framework and the Community Plans set standards for street functional classifications and street cross sections. These street cross sections in turn determine the amount of room available for the transit, bicycle, and pedestrian elements of the transportation system.

Table F-1 on page F-14 shows the existing street cross sections and usage for the main corridors within the DEIR study area. These corridors cover all of the Nexus Study Area except for the portion south of Martin Luther King Jr. Boulevard to Vernon Avenue.

In terms of functional classification of the roadway corridors, the South Los Angeles Community Plan (dated March 5, 2008) lists the following:

Major Highway Class II

- Washington Boulevard
- Adams Boulevard
- Martin Luther King Jr. Boulevard
- Vermont Avenue
- Hoover Street (north of Jefferson Boulevard)
- Figueroa Street

Secondary

- Jefferson Boulevard
- 30th Street (McClintock Avenue to Figueroa Street)
- Exposition Boulevard
- McClintock Avenue
- Vernon Avenue
- Normandie Avenue
- Hoover Street (south of Martin Luther King Jr. Boulevard)

Table F-1
Existing Surface Street Characteristics

Segment	From	To	Lane		Median Type	Parking Restriction		Speed Limit
			NB/WB	SB/EB		NB/WB	SB/EB	
Normandie Av	Washington Bl	Cordova St	2	2	2LT	PA/RZ	PA1hr(8a-6p)/RZ	35
	Cordova St	I-10 West Ramp	2	2	2LT	PA1hr(8a-6p)/RZ	PA1hr(8a-6p)/RZ	35
	I-10 West Ramp	I-10 East Ramp	2	2	RM	NSAT	NSAT	35
	I-10 East Ramp	24th St	2	2	2LT	PA1hr(8a-6p)/RZ	RZ/NSAT	35
	24th St	23rd St	2	2	2LT	PA1hr(8a-6p)	NSAT	35
	23rd St	Adams Bl	2	2	DY	PA1hr(8a-6p)	PA1hr(8a-6p)/RZ	35
	Adams Bl	Dana St	2	2	2LT	PA	PA1hr(8a-6p)/RZ	35
	Dana St	27th St	2	2	2LT	PA	PA1hr(8a-6p)/RZ	35
	27th St	29th St	2	2	2LT	PA	PA	35
	29th St	35th St	2	2	2LT	PA	PA	25
	37th Pl	37th Dr	2	2	2LT	PA	PA	35
	37th Dr	Exposition Bl	2	2	DY	NSAT	PA	35
	Exposition Bl	38th St	2	2	DY	PA	PA	35
	38th St	Rolland Curtis Pl	2	2	DY	PA	PA	35
	Rolland Curtis Pl	39th St	2	2	DY	PA	PA	35
	39th St	39th Pl	2	2	DY	PA	PA/RZ	35

Notes:

LANES:
= Number of lanes
+ = The curb lane can be used as an additional travel lane during the assigned peak periods.

MEDIAN TYPE:
DY = Double Yellow
SDY = Single Dashed Yellow
2LT = Dual Left Turn
RM = Raised Median
UD = Undivided Lane

MISCELLANEOUS:
hr = Hour
min = Minutes

PARKING:
PA = Parking Allowed
NSAT = No Stopping Any Time
GZ = Green Zone - Passenger Loading and Unloading
DZ = Disabled Parking Zone
RZ = Red Zone - No Parking Allowed
SZ = School Zone
MP = Metered Parking
N/A = Not Applicable
CZ = Construction Zone

	39th Pl	Leighton Av	2	2	DY	PA	RZ	35
	Leighton Av	Browning Bl	2	2	DY	PA	PA	35
	Browning Bl	Martin Luther King Jr. Bl	2	2	DY	PA	PA1hr(8a-6p)	35
	Martin Luther King Jr. Bl	40th Pl	2	2	DY	PA	PA	35
Budlong Av	Adams Bl	27th St	1	1	UD	PA	PA	30
	27th St	29th St	1	1	UD	PA	PA	30
	29th St	Jefferson Bl	1	1	UD	PA	PA	30
Vermont Av	Washington Bl	Cordova St	2	2	DY	RZ/PA1hr(9a-4p)/NS(7a-9a,4p-7p)	RZ	35
	Cordova St	I-10 West Ramp	2	2	2LT	PA/NS(7a-5p)	PA1hr(9a-4p)/NS(4p-7p)	35/25
	I-10 West Ramp	I-10 East Ramp	2	2	DY	NSAT	NSAT	35
	I-10 East Ramp	24th St	2	2	DY	RZ/NSAT	RZ/NSAT	35
	24th St	Adams Bl	2	2	DY	PA1hr(9a-4p)/NS(7a-9a,4p-7p)	PA1hr(9a-4p)/NS(7a-9a,4p-7p)	35
	Adams Bl	Dana St	2	2	2LT	MP1hr(8a-6p)	RZ	35
	Dana St	27th St	2	2	2LT	MP1hr(8a-6p)	MP1hr(8a-6p)	35
	27th St	31st St	2	2	DY	MP1hr(8a-6p)	MP1hr(8a-6p)	35
	31st St	Jefferson Bl	2	2	2LT	MP4hr(8a-6p)	MP4hr(8a-6p)	35

Notes:

Table F-1 (Continued)
Existing Surface Street Characteristics

Segment	From	To	Lane		Median Type	Parking Restriction		Speed Limit
			NB/WB	SB/EB		NB/WB	SB/EB	
LANES: # = Number of lanes + = The curb lane can be used as an additional travel lane during the assigned peak periods.		**MEDIAN TYPE:** DY = Double Yellow SDY = Single Dashed Yellow 2LT = Dual Left Turn RM = Raised Median UD = Undivided Lane		**MISCELLANEOUS:** hr = Hour min = Minutes		**PARKING:** PA = Parking Allowed NSAT = No Stopping Any Time GZ = Green Zone - Passenger Loading and Unloading DZ = Disabled Parking Zone	RZ = Red Zone - No Parking Allowed SZ = School Zone MP = Metered Parking N/A = Not Applicable CZ = Construction Zone	
	Jefferson Bl	Exposition Bl	2	2	RM	MP4hr(8a-6p)	MP4hr(8a-6p)	35
	Exposition Bl	Martin Luther King Jr. Bl	2	2	RM	NSAT	NSAT	35
Menlo Av	Adams Bl	29th St	1	1	UD	PA	PA/RZ	25/30
	Exposition Bl	Martin Luther King Jr. Bl	1	1	SDY	PA2hr(8a-8p)/RZ	PA2hr(8a-8p)/RZ	25/30
Ellendale Pl	Adams Bl	29th St	1	1	SDY	PA	PA	25/30
Orchard Av	Adams Bl	27th St	1	1	UD	PA	NSAT	25/30
	27th St	29th St	1	1	UD	PA	PA	25/30
	29th St	Jefferson Bl	1	1	UD	PA	DZ/RZ/PA	25/30
McClintock Av	30th St	Jefferson Bl	1	1	2LT	MP2hr(8a-6p)/RZ	MP2hr(8a-6p)	20/25
Hoover St	Washington Bl	20th St	2	2	2LT	RZ	PA	35
	20th St	24th St	2	2	2LT	PA	PA1hr(8a-6p)/RZ	35
	24th St	30th St	2	2	2LT	PA	PA	35
	30th St	Jefferson Bl	2	2	2LT	MP2hr(8a-6p)	MP2hr(8a-6p)/RZ	35
Portland St	Adams Bl	28th St	1	1	UD	PA	PA	25/30
Severance St	Adams Bl	28th St	1	1	UD	PA	PA	25/30

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University Av	27th St	30th St	1	1	SDY	NSAT	NSAT	25/30
Figueroa St	Martin Luther King Jr Bl	38th St	2+	3	2LT	NS(7-9a,4-6p)/MP1hr(9a-4p)	NSAT	35
	38th St	37th St	2+	3	DY/RM	NS(7-9a,4-6p)/MP1hr(9a-4p)	RZ	35
	37th St	USC McCarthy Way	3+	2+	RM	NS(7-9a)/MP4hr(9a-6p)	NS(4-7p)/MP15min(8a-4p)/NSAT	35
	USC Mc Carthy Way	Jefferson Bl	3+	2+	RM	CZ	NS(7-9a,4-7p)/MP4hr(9a-4p)	35
	Jefferson Bl	30th St	3+	2+	2LT	NS(7-9a)/MP1hr(9a-6p)	NS(4-7p)/MP1hr(8a-4p)	35
	30th St	Adams Bl	3+	2	2LT	NS(7-9a)/MP1hr(9a-6p)	NS(4-7p)/MP1hr(8a-4p)	35
	Adams Bl	23rd St	3	1+	2LT	RZ	NS(7-9a,4-7p)/PA1hr(9a-4p)	25
	23rd St	21st St	3+	2	2LT	NS(7-9a)/PA1hr(9a-6p)	NS(4-7p)/PA1hr(8a-4p)	35
	21st St	Washington Bl	3+	1+	2LT	NS(7-9a)/PA1hr(9a-6p)	NSAT/NS(4-7p)/PA 1hr(8a-4p)	35
Flower St	Washington Bl	23rd St	N/A	4	N/A	MP6hr(7a-7p)	MP6hr(7a-7p)	35
	23rd St	Adams Bl	1	3	2LT	NSAT	NSAT	35

Table F-1 (Continued)
Existing Surface Street Characteristics

Segment	From	To	Lane		Median Type	Parking Restriction		Speed Limit
			NB/WB	SB/EB		NB/WB	SB/EB	
	Adams Bl	Jefferson Bl	N/A	4	N/A	NSAT	PA2hr(8a-6p)	35
	Jefferson Bl	Exposition Bl	N/A	2/4	N/A	MP4hr(8a-6p)	CZ	35
	Exposition Bl	37th St	0	2	2LT	NSAT	CZ	35
	37th St	38th St	1	2	2LT	MP4hr(8a-6p)	CZ	35

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Grand Av	39th St	38th St	1	1	2LT	PA2hr(8a-6p)	PA2hr(8a-6p)	35
	38th St	37th St	1	1	2LT	PA	PA	35
	37th St	35th St	1	1	DY	CZ	PA	35
	35th St	Jefferson Bl	1	1	2LT	PA	PA1hr(8a-6p)	35
	Jefferson Bl	32nd St	2	2	2LT	PA1hr(8a-6p)	NSAT	35
	32nd St	31st St	2	2	DY	PA	PA1hr(8a-6p)	35
	31st St	30th St	2	2	DY	PA1hr(8a-6p)	PA1hr(8a-6p)	35
	30th St	29th St	2	2	DY	PA1hr(8a-6p)	RZ	35
	28th St	Adams Bl	2	2	DY	PA15min(8a-6p)	RZ/HC/GZ	35
	Adams Bl	24th St	1	2	2LT	PA1hr(8a-6p)	NS(7a-5p)	35
	24th St	23rd St	1	2	2LT	MP1hr(8a-6p)	NS(7a-5p)	35
	23rd St	Washington Bl	1	2	2LT	MP6hr(7a-7p)	MP6hr(7a-7p)	25
Hill St	23rd St	Adams Bl	2	2	DY	RZ/PA1hr(8a-6p)/GZ/MP1hr(8a-6p)	MP1hr(8a-6p)/PA1hr(8a-6p)	30
	Adams Bl	Jefferson Bl	2	2	DY	PA1hr(8a-6p)/PA/GZ	PA1hr(8a-6p)/PA/GZ	30/25
	Jefferson Bl	Exposition Bl	2	2	DY	RZ/PA	RZ/PA	30
	Exposition Bl	37th St	2	2	DY	GZ(6:30-9a,1:30-4p)/PA2hr(9a-1:30p)	PA/GZ	30

Notes:

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CZ = Construction Zone

	37th St	38th St	2	2	DY	PA/GZ	PA	30
	38th St	39th St	2	2	DY	PA	PA	30
	39th St	Martin Luther King Jr. Bl	2	2	DY	PA	PA	30
Broadway St	23rd St	Adams Bl	2	2	DY	PA1hr(8a-6p)/RZ	PA1hr(8a-6p)/RZ	35
	Adams Bl	Jefferson Bl	2	2	DY	PA1hr(8a-6p)/RZ/NS(7a-9a)	PA1hr(8a-6p)/RZ	35/25
	Jefferson Bl	Exposition Bl	2	2	DY	PA1hr(8a-6p)/RZ	RZ/GZ	25
	Exposition Bl	37th St	2	2	DY	PA/NS(7a-9a)/RZ/	GZ(6:30-9a,1:30-4p)/PA2hr(9a-1:30p)	25

Table F-1 (Continued)
Existing Surface Street Characteristics

Segment	From	To	Lane		Median Type	Parking Restriction		Speed Limit
			NB/WB	SB/EB		NB/WB	SB/EB	
	37th St	38th St	2	2	DY	PA/NS(7a-9a)	PA/RZ/NS(4p-7p)	25
	38th St	39th St	2	2	DY	PA/NS(7a-9a)	PA/RZ/NS(4p-7p)	35/25
	39th St	Martin Luther King Jr. Bl	2	2	2LT	RZ	PA/RZ	35
Main St	36th Pl	35th St	2	2	2LT	PA1hr(8a-6p)	PA1hr(8a-6p)	30
	35th St	Jefferson Bl	2	2	2LT	PA	PA	30
	Jefferson Bl	33rd St	2	2	2LT	PA	PA1hr(8a-6p)	30
	33rd St	28th St	2	2	2LT	PA	PA	30
	28th St	27th St	2	2	2LT	PA1hr(8a-6p)	PA1hr(8a-6p)	30
	27th St	Adams Bl	2	2	2LT	PA	PA1hr(8a-6p)	30

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	Adams Bl	22nd St	2	2	2LT	PA	PA	30
	22nd St	21st St	2	2	2LT	PA	NS(4-6p)/PA1hr(8a-4p)	30
	21st St	23rd St	2	2	2LT	PA1hr(8a-6p)/PA	NS(4-6p)/PA1hr(8a-4p)	30
Broadway Pl	36th Pl	38th St	2	2	2LT	PA	PA	35
	38th St	39th St	2	2	2LT	PA1hr(8a-6p)	PA	35
	39th St	Martin Luther King Jr. Bl	2	2	2LT	PA1hr(8a-6p)	PA1hr(8a-6p)	35
Washington Bl	Normandie Av	Budlong	2+	2+	DY	PA1h(8a-4p)/NS(4p-6)/NS(8p-6a)	PA1h(9a-6p)/NS(7a-9a)/NS(8p-6a)	35
	Budlong Av	Orchard Av	2+	2+	DY	PA1h(8a-4p)/NS(4p-6)/RZ	PA1h(9a-6p)/NS(7a-9a)	35/25
	Orchard Av	Hoover St	2+	2+	DY	PA1h(8a-4p)/NS(4p-6)	PA1h(9a-6p)/NS(7a-9a)/RZ	35
	Hoover St	Union Av	2+	2+	2LT	NS(4p-4a)/PA1hr(4a-4p)/NSAT	NS(7-9a,3:30-7p)/PA1hr(9a-3:30p)	35
	Union Av	Toberman St	2+	2+	RM	NSAT	NSAT/SZ	25
	Toberman St	Bonsallo Av	2+	2+	2LT	NS(4-7p)/PA1hr(8a-4p)	NS(7-9a,3:30-7p)/PA1hr(9a-3:30p)	35
	Bonsallo Av	Georgia St	2+	2+	2LT	NSAT	NSAT	35
	Georgia St	Figueroa St	2+	2+	2LT	NS(7-9a,3:30-7p)/PA1hr(9a-3:30p)	NS(7-9a,3:30-7p)/PA1hr(9a-3:30p)	35
	Figueroa St	Flower St	3	3	2LT	RZ	NSAT	35
	Flower St	Grand Av	2+	2+	RM	NSAT	NSAT	35

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20th St	Ellendale	Orchard Av	1	1	DY	PA	PA	25/30
	Orchard Av	Hoover St	1	1	2lt	PA/NS(4p-6p)	PA/RZ	25/30

Table F-1 (Continued)
Existing Surface Street Characteristics

Segment	From	To	Lane		Median Type	Parking Restriction		Speed Limit
			NB/WB	SB/EB		NB/WB	SB/EB	
23rd St	Hoover St	Figueroa St	1	1	DY	PA/GZ/RZ	PA/GZ/RZ	25/30
	Figueroa St	Flower St	1	1	SDY	CZ	NSAT	25/30
	Flower St	Hope St	1	1	SDY	MPA1h(8a-6p)	MPA1h(8a-6p)	25/30
	Hope St	Grand Av	1	1	SDY	CZ	MPA1h(8a-6p)	25/30
	Grand Av	Hill St	1	1	SDY	MPA1h(8a-6p)	MPA1h(8a-6p)/GZ	25/30
	Hill St	Broadway	1	1	SDY	MPA1h(8a-6p)	MPA1h(8a-6p)	25/30
	Broadway	Main St	1	1	SDY	MPA1h(8a-6p)	MPA1h(8a-6p)	25/30
24th St	Vermont Av	Hoover St	1	1	DY	PA/GZ	PA/GZ	25/30
Adams Bl	Vermont Av	Magnolia Av	2	2	DY	PA	PA	35/25
	Magnolia Av	Hoover St	2	2	2LT	NS(4-6p)	PA	35
	Hoover St	Severance St	2	2	DY	NS(4-6p)	PA	35
	Severance St	Chester Pl	2	2	DY	NS(4-6p)/PA4hr(8a-4p)	PA4hr(8a-6p)	35
	Chester Pl	Figueroa St	2	2	DY	NSAT	NS(4-6p)/MP4hr(8a-4p)/RZ	35
	Figueroa St	Flower St	3	2	2LT	NSAT	NSAT	25

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	Flower St	Grand Ave	2	1+	2LT	RZ	NS(7-9a,4-6p)/PA1hr(9a-4p)	35
	Grand Ave	Main St	1+	1+	2LT	NS(7-9a,4-6p)	NS(7-9a,4-6p)	35/25
27th St	Orchard Av	Hoover St	1	1	UD	PA	PA	25/30
	University Av	Figueroa St	1	1	UD	MP2hr(8a-6p)/RZ/15minGZ	MP1hr(8a-6p)/RZ	25/30
28th St	Orchard Av	Hoover St	1	1	UD	PA	PA	25/30
	Hoover St	Figueroa St	1	1	DY	MP2hr(8a-6p)/PA/RZ	MP2hr(8a-6p)/PA/RZ	25/30
29th St	Normandie Av	Budlong Av	1	1	UD	PA	PA	35
	Budlong Av	Vermont Av	1	1	UD	MPA1h(8a-6p)/PA	PA/MPA1h(8a-6p)	35
	Vermont Av	Orchard Av	1	1	UD	PA/RZ/GZ	PA/MPA1h(8a-6p)	35
	Orchard Av	Hoover St	1	1	UD	PA/GZ	PA	35
30th St	Hoover St	University Av	1	1	2LT	PA	MP4hr(8a-4p)	30
	University Av	Royal St	1	1	DY	PA	PA	30
	Royal St	Figueroa St	1	1	SDY	PA/MP1hr(8a-6p)	PA/MP1hr(8a-6p)	30
	Figueroa St	Hope St	1	1	SDY	NSAT	NSAT	30
	Hope St	Hill St	1	1	SDY	PA	PA	30
	Hill St	Broadway	1	1	SDY	GZ(6:30-9a,1:30-4p)/PA2hr(9a-1:30p)	PA	25/30

Notes:

LANES:
= Number of lanes
+ = The curb lane can be used as an

MEDIAN TYPE:
DY = Double Yellow
SDY = Single Dashed Yellow

MISCELLANEOUS:
hr = Hour
min = Minutes

PARKING:
PA = Parking Allowed
NSAT = No Stopping Any Time
RZ = Red Zone - No Parking Allowed
SZ = School Zone

Table F-1 (Continued)
Existing Surface Street Characteristics

Segment	From	To	Lane		Median Type	Parking Restriction		Speed Limit
			NB/WB	SB/EB		NB/WB	SB/EB	
additional travel lane during the assigned peak periods. 2LT = Dual Left Turn RM = Raised Median UD = Undivided Lane GZ = Green Zone - Passenger Loading and Unloading DZ = Disabled Parking Zone MP = Metered Parking N/A = Not Applicable CZ = Construction Zone								
	Broadway	Main St	1	1	SDY	PA	PA	30
30th Pl	Vermont Av	Orchard Av	1	1	UD	PA	NSAT	15
	Orchard Av	McClintock Av	1	1	UD	NSAT	NSAT	15
32nd St	Hoover St	University Av	2	2	DY	RZ	MP2hr(8a-6p)/RZ	25/30
	University Av	Royal St	2	2	DY	PA	NS(7a-5p)/PA	25/30
	Royal St	Shrine Pl	2	2	DY	PA	RZ	25/30
	Shrine Pl	Figueroa St	1	1	DY	MP2hr(8a-6p)/GZ	CZ	25/30
Jefferson Bl	Normandie Av	Kenwood Av	1+	1+	2LT	NSAT	NSAT	35
	Kenwood Av	Catalina St	1+	1+	DY	NS(7-9a,4-6p)/PA1hr(9a-4p)	NS(7-9a,4-6p)/PA1hr(9a-4p)	35
	Catalina St	Vermont Av	2	2	2LT	MP4hr(8a-6p)	MP4hr(8a-6p)	25
	Vermont Av	McClintock Av	2	2	RM	MP4hr(8a-6p)	MP4hr(8a-6p)	35/25
	Mc Clintock Av	Hoover St	2	2	RM	NSAT	MP1hr(8a-6p)	35
	Hoover St	Figueroa St	2	2	RM	MP1hr(8a-6p)/GZ	MP4hr(8a-6p)	35
	Figueroa St	Flower St	2	2	DY	NS(7-9a,4-6p)/MP1hr(9a-4p)	CZ	35
	Flower St	Hope St	2	2	DY/2LT	NSAT	NSAT	35
	Hope St	Hill St	2	2	DY	PA1hr(8a-6p)	PA1hr(8a-6p)	35

Notes:

LANES:
= Number of lanes
+ = The curb lane can be used as an additional travel lane during the assigned peak periods.

MEDIAN TYPE:
DY = Double Yellow
SDY = Single Dashed Yellow
2LT = Dual Left Turn
RM = Raised Median
UD = Undivided Lane

MISCELLANEOUS:
hr = Hour
min = Minutes

PARKING:
PA = Parking Allowed
NSAT = No Stopping Any Time
GZ = Green Zone - Passenger Loading and Unloading
DZ = Disabled Parking Zone
RZ = Red Zone - No Parking Allowed
SZ = School Zone
MP = Metered Parking
N/A = Not Applicable
CZ = Construction Zone

	Hill St	Maple Av	2	2	DY	PA	PA	35
36th Pl	Normandie Av	Budlong Av	1	1	SDY	PA	GZ(6:30-9a,1:30-4p)/PA2hr(9a-1:30p)	25
	Budlong Av	Vermont Av	1	1	SDY	NS(7a-9a)/PA1hr(9a-6p)	NS(7a-9a)/PA1hr(9a-6p)	25
Exposition Bl	Normandie Av	Wisconsin St	3	3	RM	PA	PA	35
	Wisconsin St	Vermont Av	3	3	RM	PA1hr(8a-6p)	MP1hr(8a-6p)	35
	Vermont Av	Menlo Av	3	3	RM	MP4hr(6a-10p)	NSAT	35
	Menlo Av	Figueroa St	3	3	RM	MP4hr(6a-10p)	MP4hr(6a-10p)	35
	Figueroa St	Flower St	2	N/A	N/A	NSAT	NSAT	35
	Flower St	Hope St	2	N/A	N/A	NSAT	NSAT	35
37th St	Figueroa St	Flower St	N/A	CZ	N/A	NSAT	NSAT	35
	Flower St	Hope St	N/A	4	N/A	NSAT	NSAT	35
	Hope St	Grand Av	1	2	DY	PA	RZ	35
	Grand Av	Broadway Pl	1	1	SDY	PA	PA	35
38th St	Figueroa St	Grand Av	1	1	UD	PA	PA	25/30

Table F-1 (Continued)
Existing Surface Street Characteristics

Segment	From	To	Lane		Median Type	Parking Restriction		Speed Limit
			NB/WB	SB/EB		NB/WB	SB/EB	
	Grand Av	Hill St	1	1	UD	PA	PA	25/30
	Hill St	Broadway	1	1	UD	PA	PA	25/30
	Broadway	Broadway Pl	1	1	UD	PA	PA	25/30
39th St	Grand Av	Broadway Pl	2	2	DY	PA	PA	35
Martin Luther King Jr. Bl	Normandie Av	Budlong Av	3	3	2LT	PA	PA	35
	Budlong Av	Vermont Av	3	3	2LT	NSAT	PA2hr(8a-6p)	35
	Vermont Av	Hoover St	3	2+	2LT	NSAT	NS(7-9a)/PA1hr(9a-6p)	35
	Hoover St	Figueroa St	3	2+	2LT	NSAT	NS(7-9a)/PA1hr(9a-6p)	35
	Figueroa St	Hill St	3	3	2LT	NSAT	NSAT	35
	Hill St	Broadway	2+	2+	2LT	NS(4-6p)/PA1hr(8a-4p)	NS(7-9a)/PA1hr(9a-6p)	35
	Broadway	Broadway Pl	2+	2+	2LT	NS(4-6p)/PA1hr(8a-4p)	NS(7-9a)	35
	Broadway Pl	Main St	2+	2	2LT	NS(4-6p)/PA1hr(8a-4p)	PA	35
	Broadway Pl	Main St	2+	2	2LT	NS(4-6p)/PA1hr(8a-4p)	PA	35

Notes:

LANES:
= Number of lanes
+ = The curb lane can be used as an additional travel lane during the assigned peak periods.

MEDIAN TYPE:
DY = Double Yellow
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SZ = School Zone
MP = Metered Parking
N/A = Not Applicable
CZ = Construction Zone

In addition, there are numerous streets classified as Collectors within the Nexus Study Area.

(1) Los Angeles Municipal Code and City Policies

The portions of the Alternate Transportation systems generally controlled by the Los Angeles Municipal Code include bicycle parking requirements and sidewalk widths.

The Municipal Code establishes a minimum parking requirement for new developments based on the size and type of land use proposed. As part of the Code, bicycle parking rates are also established, requiring new developments to provide bicycle parking facilities.

The Department of Public Works, Bureau of Engineering has determined that sidewalks must be a minimum of eight feet wide in order to meet the requirements of the Americans with Disabilities Act (ADA).

(2) LA Bicycle Plan

The 2010 Bicycle Plan was approved by the City Council on March 1, 2011. The Plan includes a Technical Design Handbook which details the physical requirements for providing both on- and off-street bicycle facilities.

The Bicycle Plan divides the City into geographical areas and the entire Nexus Study Area is encompassed in the Plan's Central and South LA Geographical Area.

Figures F-5 through F-7 on pages F-22 through F-24 show the existing and planned bicycle facilities according to the 2010 Bicycle Plan.

4. Environmental Impacts

a. Significance Thresholds

(1) Public Transit Significance Threshold

The City of Los Angeles CEQA Thresholds Guide does not specify a threshold of significance for a project's impact on transit system capacity, stating that the determination of significance shall be made on a case by case basis, considering the projected number of additional transit passengers expected with implementation of the proposed project and available transit capacity.

DRAFT

SCALE: 11/32"= 1 mile

1 mile

2010 BICYCLE PLAN
Designated Bikeways

- Bicycle Path
- Bicycle Lane
- Bicycle Route
- Bicycle Friendly Street
- Countywide Existing & Proposed Facilities
- Existing Rail & Busway Stations
- Proposed Rail & Busway Stations
- College Campus
- Shopping & Entertainment
- Hospitals
- Parks
- Airports
- City Boundary

Source: City of Los Angeles Planning Department, December 2010.

matrix environmental

Figure F-5
Bikeways Engineering

DRAFT

SCALE: 11/32"= 1 mile

1 mile

2010 BICYCLE PLAN
Citywide Bikeway System

- Backbone Bikeway Network
- Neighborhood Bikeway Network
- Green Bikeway Network
- Countywide Existing and Proposed Bicycle Facilities
- Existing Rail and Busway Stations
- Proposed Rail and Busway Stations
- Clean Mobility Hub
- Multi Mobility Hub
- College Campus
- Shopping & Entertainment
- Hospitals
- Parks
- Airports
- City Boundary

Source: City of Los Angeles Planning Department, December 2010.

matrix environmental

Figure F-6
Citywide Bikeway Plan

DRAFT

SCALE: 11/32"= 1 mile

1 mile

2010 BICYCLE PLAN
Citywide and Neighborhood Existing and Funded Bikeways

- Existing Bicycle Path
- Funded Bicycle Path
- Existing Bicycle Lane
- Funded Bicycle Lane
- Existing Bicycle Route
- Countywide Existing and Proposed Bicycle Facilities
- Existing Rail and Busway Stations
- Proposed Rail and Busway Stations
- College Campus
- Shopping & Entertainment
- Hospitals
- Parks
- Airports
- City Boundary

Source: City of Los Angeles Planning Department, December 2010.

matrix environmental

Figure F-7
Citywide and Neighborhood Bikeway Plan

Based on these factors, the proposed Project would have a significant impact if transit trips generated by the proposed Project could not be accommodated within the capacity of the existing and future bus transit lines serving the Project site.

(2) Bicycle and Pedestrian Significance Threshold

The following factors are set forth in the City of Los Angeles CEQA Thresholds Guide, which states that the determination of significance shall be on a case-by-case basis, considering the following factors:

- The amount of pedestrian activity at project access points.
- Design features/physical configurations that affect the visibility of pedestrians and bicyclists to drivers entering and exiting the site, and the visibility of cars to pedestrians and bicyclists.
- The type of bicycle facility the project driveway(s) crosses and the level of utilization.
- The physical conditions of the site and surrounding area, such as curves, slopes, walls, landscaping or other barriers, that could result in vehicle/pedestrian, vehicle/bicycle or vehicle/vehicle impacts.

Based on all of the above factors, the proposed Project would have a significant impact if Project development would substantially increase hazards to bicyclists or pedestrians.

b. Future Transportation Systems

(1) Improvements to USC Tram Services

USC would modify its tram and shuttle system and make route, shuttle-stop modifications, and additions which would result in increased connectivity to the Expo LRT (currently under construction) and other public transit services like the Downtown Area Shuttle (DASH), Metro bus lines, Metro Rapid, etc.

(2) Proposed Transit Improvements

One of the major additions to the transit services in the Study Area is construction of Exposition Line Phase 1, which will provide light rail transit service between downtown Los Angeles (Union Station) and Culver City, with a terminus station at Venice Boulevard and Robertson Boulevard. In the Study Area, the Exposition Line travels north and south along

Flower Street and east and west along Exposition Boulevard. It is proposed to have stations at the following locations:

1. 23rd Street and Flower Street
2. Jefferson Boulevard and Flower Street
3. Exposition Boulevard at Exposition Park/USC
4. Vermont Avenue and Exposition Boulevard

The Exposition Line will be generally at-grade, with grade crossings for vehicles and pedestrians. Within the Study Area, the tracks are below-grade through the intersections of Flower Street & Exposition Boulevard and Figueroa Street & Exposition Boulevard in order to minimize the pedestrian and vehicular impact at these high-volume locations.

Phase 1 is scheduled to open in 2011. Phase 2 of the project, which will extend service to downtown Santa Monica, is expected to be open by 2014 or 2015. Once complete, the Exposition Line will provide an alternative to Interstate 10 for commuters and other travelers.

(3) Improvements to Bicycle and Pedestrian Facilities

One of the proposed Project objectives is to promote pedestrian and bicycle safety and minimize opportunities for pedestrian and vehicular conflict. Thus, as described below several improvements have been proposed to address this objective.

The Project proposes to eliminate on-street parking along a portion of Jefferson Boulevard between Orchard Avenue and Hoover Street in favor of an on-street bicycle lane and wider sidewalks. The resulting improvement would provide the same vehicular traffic capacity as existing conditions with a five-lane cross-section on Jefferson Boulevard (two travel lanes in each direction with a raised median/center left-turn lane and bicycle lanes on both sides). This would be accomplished by allocating part of the removed parking space to bicycle lanes and part to sidewalks, narrowing the curb-to-curb width of Jefferson Boulevard. Bicycle traffic would benefit from the on-street travel lane, and pedestrians would benefit both from the wider sidewalks and the reduced crossing distance at major intersections with Hoover Street and McClintock Avenue. This improvement would not decrease vehicular traffic capacity along Jefferson Boulevard except during special events.

Another proposed improvement is the conversion of McClintock Avenue between 30th Street and Jefferson Boulevard to a bicycle- and pedestrian-only street. This

proposed roadway change would result in closure of the north leg of the intersection of McClintock Avenue & Jefferson Boulevard to vehicular traffic.

As part of the internal development of Subarea 1, the core Campus, modifications would be made to the pedestrian and bicycle system with measures to minimize vehicular movement and improve pedestrian and bicycle accommodations within the Campus. These improvements would link to improvements off Campus, such as the bike lanes on Jefferson Boulevard.

Primary pedestrian and bicycle access to Subarea 3 would be provided from the following major access points:

- North leg of Intersection of McClintock Avenue and Jefferson Boulevard: The Project proposes to convert the north leg of the intersection of McClintock Avenue and Jefferson Boulevard into a "bicycle and pedestrian" only street. This access point would serve as a major entry point for bicycles and pedestrians traveling to/from the campus (Subarea 1).

- Northwest corner of Jefferson Boulevard and Hoover Street: The northwest corner of the intersection of Jefferson Boulevard and Hoover Street is also proposed to serve as a major access for bicycles and pedestrians to Subarea 3.

- Entrance located along northbound Orchard Avenue between Jefferson Boulevard and 30th Place.

- Entrance located along Hoover Street, south of 32nd Street.

- Entrances located along westbound Jefferson Boulevard between McClintock Avenue and Hoover Street.

- Pedestrians would also be able to access Subarea 3 from other minor entrances that would be located along the perimeter of the development.

(a) USC Bicycle Improvements

As part of their Master Planning effort, USC is committed to enhancing safety and order to the bicycle traffic traversing within and around the Campus. This includes educating the riders, investing in safety measures at specific bicycle-pedestrian-vehicular conflict hotspots, and making improvements to bicycle storage facilities within the campus.

As part of the 2010 Bicycle Plan, the City of Los Angeles has proposed the following improvements to the existing bicycle route network by Year 2016:

- Restripe the existing roadway to provide marked bicycle lanes along Exposition Boulevard west of Vermont Avenue (funded improvement).

- Restripe the existing roadway to provide marked bicycle lanes along Martin Luther King Jr. Boulevard west of Figueroa Street (Priority 1 improvement)

- Extend existing bicycle route on Vermont Avenue south from 36th Street to beyond the study area (Priority 2 improvement).

- Extend the bicycle path on Adams Boulevard west from Vermont Avenue (Priority 2 improvement).

The above improvements are expected to be implemented by Year 2016 under the approved 2010 Bicycle Plan.

(b) Pedestrian Improvements

In an effort to address some of the key pedestrian-vehicle conflict areas, USC has recently (September 2009) funded the design and installation of a pedestrian signal at the intersection of Hoover Street & 28th Street. USC is also working with LADOT in implementing various near-term pedestrian safety features along Jefferson Boulevard and Hoover Street. These features include improvements at the intersections of Hoover Street and McClintock Avenue along Jefferson Boulevard, heavily used pedestrian access points. These enhancements focus on pedestrian and vehicle visibility, increased intersection illumination and better driver awareness throughout the length of the roadway corridor.

c. Alternative Systems – Transportation Demand Management (TDM)

The University, for a number of years, has been committed to encouraging alternative modes of travel for students, staff, and faculty. As part of its commitment, USC currently has a comprehensive TDM program for the Campus. A TDM program is a set of strategies, measures, and incentives to encourage Campus commuters to walk, bicycle, use public transportation, carpool, or use other alternatives to driving alone. TDM measures produce more mobility using existing transportation systems, boost economic efficiency of the current transportation infrastructure, improve air quality, save energy, and reduce traffic congestion. Below are descriptions of the planned improvements and expansions of USC's TDM program.

(1) Expansion of Other Transportation Demand Management Measures

As part of the proposed Project, USC would expand its existing TDM program. A preliminary TDM program shall be prepared and provided for DOT review prior to the issuance of a building permit for the Project's first new building that is more than 50,000 square feet and a final TDM program approved by DOT is required prior to the issuance of a certificate of occupancy for the Project's first new building that is more than 50,000 square feet. The TDM plan shall include, but is not limited to, the following measures:

- On-Campus TDM Coordinator: USC would employ a full-time on-campus TDM coordinator to implement the various TDM programs provided by the University. Some of the activities a coordinator would oversee include assisting students, faculty and staff with questions about various TDM programs offered, coordinating University's efforts with other public/private agencies, etc.

- Transit-Use Training during Student Orientations: USC would include transit-use (rail, bus, University tram, and shuttle-bus) training as part of new student orientations. This would inform new students about the various programs and subsidies offered by the University to encourage transit use. The training may also include information relating to other TDM programs such as Carpool, Vanpool, Ride-Share etc.

- Subsidize Transit Passes: USC would continue to subsidize transit passes in exchange for parking permits to encourage transit use among students, faculty and staff as their primary mode of transportation to/from the University.

- Mobility Hub: USC would contribute towards establishing a "Mobility Hub" on- or along the perimeter of the campus. The "Mobility Hub" is likely to include secure bike parking, bike sharing, fold-n-go bike leasing program, and car sharing system. USC would provide a storefront space (approx 250 square feet) and shared car parking spaces within its parking facilities to facilitate the Mobility Hub operations. The precise location of the Mobility Hub is yet to be determined, but it would most likely be located either near the intersection of Jefferson Boulevard and Hoover Street in what is currently the University Village (in Subarea 3A) or on the University Park Campus in Parking Structure X (in Subarea 1).

- Transportation Information Center: USC would establish a transportation information center on-campus which would provide transit-maps, schedules, and information related to available alternative transportation modes and TDM programs offered by the University.

- Work with MTA and LADOT to Implement First/Last Mile Strategies: USC would work with MTA and LADOT to assist in implementing first/last mile strategies to

connect students, faculty, staff and visitors to various transit lines, stations, bus-stops, etc.

- Shuttle To/From LA Live and USC: USC would provide a shuttle-bus between LA Live and the University campus for students traveling to/from LA Live.

- Expansion of Car Share Program: Zipcar is a car sharing program available to faculty, staff and students. The program allows drivers 18 years and older to become a member and have access to an automobile per their need—as an hourly, daily, or weekly rental. There are currently over 1,000 members enrolled in this program. The vehicles are hybrid or highly rated "green" vehicles and the membership includes car insurance, gas and maintenance costs. Each Zipcar is currently being used between 48% and 75% of the time. The program currently has 16 cars on the UPC and the North Campus (the area bounded by Vermont Avenue to the west, Figueroa Street to the east, Adams Boulevard to the north, and Jefferson Boulevard to the south). It is planned to be expanded by 6 additional vehicles in the future.

- Daily Car Rentals: USC would collaborate with a national car rental company to establish a car rental facility on-campus. The rental car company would provide daily car rentals to students, faculty and staff.

- Expansion of Vanpool Program: USC would expand the existing Vanpool program by adding services to Santa Clarita and Oxnard in the immediate future. This service could also be extended to other locations over time if demand becomes feasible.

- Ride-Share Matching System: USC is collaborating with Zimride, an online social networking site for ridesharing. Membership to the site would be free and the system would allow for student, faculty and staff to share seats in cars or ride with other USC patrons to/from common locations. The site would help USC patrons to offer or request rides for commutes, road trips, and popular events.

The new TDM measures described above would further reduce the trip generation of both the Project and the existing campus population. It is conservatively assumed that, in aggregate, these new measures would result in an additional five percent reduction in campus-wide trip generation during the peak hours.

5. Environmental Impacts as Set Forth in EIR

a. Impacts on Public Transit

As part of the Project trip generation estimates, a transit credit of 5 percent of total projected trips was taken, in consultation with LADOT. Without this transit credit, the proposed Project would have a net vehicular trip generation of approximately 1,046 trips

during the A.M. peak hour and 1,370 during the P.M. peak hour. Applying the AVR factor of 1.4 results in a total of 1,464 and 1,918 trips during the A.M. and P.M. peak hours, respectively. For the purposes of the public transit analysis, a credit of 5 percent of the total net person trips has been assigned to transit trips because a similar vehicle trip credit was taken from the proposed Project's vehicle trip generation. Following this approach, approximately 74 new transit riders in the morning peak hour and 95 new transit riders in the evening peak hour would use transit services.

Within one-quarter mile of the Project site, LADOT operates five commuter express routes and two DASH bus routes. Metro operates 10 local bus lines, eight express lines, and two rapid lines. The Metro Exposition Light Rail Line service has proposed future stations at Exposition Boulevard & Vermont Avenue and Jefferson Boulevard & Flower Street, which are both within one-quarter mile of the Project site. Additionally, Orange County Transportation Authority operates two fixed-route buses, Santa Monica Big Blue Bus operates one fixed-route bus, and Torrance Transit operates two fixed-route bus services within one-quarter mile of the Project site on Harbor Transitway (I-110).

A majority of the new transit riders are expected to ride the EXPO LRT, which has two stations serving the USC Campus. The Project location is also well served by numerous other established transit routes. Therefore, Project impacts on transit would be less than significant.

b. Impacts on Bicycle and Pedestrian Safety

A majority of the bicycle and pedestrian activity is currently concentrated along Jefferson Boulevard with most of the crossings (between the north and south side of Jefferson Boulevard) occurring at the intersections of McClintock Avenue and Hoover Street along Jefferson Boulevard. The City of Los Angeles currently operates these intersections with a pedestrian scramble phase which allows for bicycles and pedestrians to cross in all directions while vehicular traffic stops on all approaches. The proposed Project is likely to result in an increase in bicycle and pedestrian activity. However, the proposed Project's physical configuration is not anticipated to affect the visibility of pedestrians and bicyclists to drivers entering and exiting the site or visibility of cars to pedestrians and bicyclists. The physical conditions of the Project site and the surrounding area are not anticipated to result in a negative impact to the safety of pedestrians and bicyclists. Furthermore, to improve bicycle safety, the Project proposes to convert McClintock Avenue between 30th Place and Jefferson Boulevard to a bicycle- and pedestrian-only street. This proposed roadway change would result in closure of the north leg of the intersection of McClintock Avenue & Jefferson Boulevard to vehicular traffic.

Additionally, as previously described, in an effort to improve pedestrian safety, USC has recently (September 2009) funded the design and installation of a pedestrian signal at the intersection of Hoover Street & 28th Street. USC is also working with LADOT in implementing various near-term pedestrian safety features including improvements at the intersections of Hoover Street and McClintock Avenue along Jefferson Boulevard. These measures focus on pedestrian and vehicle visibility, increased intersection illumination, and better driver awareness through the length of the corridor. These measures also include closure of the south leg of the intersection of Hoover Street and Jefferson Boulevard and equipment upgrades such as enhanced illumination and signal equipment upgrades at the two intersections.

As described above, in order to achieve improvements in pedestrian and bicycle safety, without reducing traffic capacity along Jefferson Boulevard, the Project proposes to eliminate the on-street parking between Orchard Avenue and Hoover Street in favor of an on-street bicycle lane and wider sidewalks. The resulting improvement would provide for five automobile travel lanes on Jefferson Boulevard (two in each direction with a raised median/turn lane and bicycle lanes on both sides). The narrowing would provide an on-street facility for cyclists traveling along Jefferson Boulevard and reduce the crossing distance for cyclists and pedestrians. This improvement would also retain vehicular travel capacity during the peak traffic periods.

With regard to the Exposition LRT, this LRT is under construction and expected to open in 2011. The track will be grade-separated through most of this area, including the key intersections of Figueroa/Jefferson and Figueroa/Exposition. The only at-grade crossing will be at the Vermont/Exposition intersection. The proposed Project does not call for any physical changes at this intersection, and the proposed student housing on the north side of campus (north of Jefferson) will only serve to reduce pedestrian volumes near Vermont/Exposition, as students will relocate to this new housing in-lieu of areas west and south of campus. The proposed Project, including the potential laboratory school, the resulting increase in traffic and changes to pedestrian circulation, would not present any safety impacts with respect to the LRT facilities and no changes to the LRT facilities would be required.

Based on the above, with the University's near-term and long-term bicycle and pedestrian safety improvements, Project impacts on pedestrian/bicycle safety would be less than significant.

6. USC Development Plan Impact on Alternate Transportation Systems in the Nexus Study Area

As described in the Draft EIR, the USC Development Plan would mitigate its impacts on the pedestrian, bicycle, and transit systems serving both the USC Development Plan area and the larger Draft EIR transportation study area. The additional area contained within the Nexus Study Area would not experience impacts to alternative transportation systems. As such, no significant impacts are projected to occur in the Nexus Study Area. Thus, the analysis and conclusions regarding the Nexus Study Area are the same as those set forth in the Draft EIR.

Section G. Public Infrastructure

1. Wastewater

1. Introduction

This section of the Nexus Study sets forth information regarding wastewater in the Draft EIR for the USC Development Plan. The scope of this wastewater section of the Nexus Study exceeds the required scope under the California Environmental Quality Act (CEQA). This section includes an assessment of existing wastewater infrastructure in the Nexus Study Area, a description of regulations and plans regarding wastewater, the analysis of impacts on wastewater infrastructure associated with the USC Development Plan as presented in the Draft EIR, and a comparison of impacts identified within the Draft EIR with potential impacts in the Nexus Study Area. As demonstrated by the analysis below, wastewater impacts within the Nexus Study Area are the same as those identified in the Draft EIR. This section of the Nexus Study does not contain any new analyses or mitigation measures for the Project that are required by CEQA.

a. Sewer System Study Objectives and Methodology

This section of the Nexus Study sets forth information regarding the sewer system in the Draft EIR for the USC Development Plan for the Nexus Study Area. The report describes existing flow levels and capacity of the sewer systems around the Study Area. The existing flow levels and impacts of the estimated increase in sewer demand due to the USC Development Plan are analyzed in the report.

b. USC Development Plan Sewer Infrastructure Study

In May 2010, KPFF Consulting Engineers prepared a Sewer Infrastructure Study report as a part of supporting documents to the USC Development Plan Draft EIR. The USC Development Plan site consists of three subareas on or around University Park Campus with a total area of 207 acres. Subarea 1 (166 acres) of the proposed Specific Plan is bounded by Jefferson Boulevard to the north, Vermont Avenue to the west, Exposition Boulevard and 37th Place to the south and the Harbor Freeway to the east. Subarea 2 (11 acres) is generally defined within the limits of Jefferson Boulevard to the north, Hope to the west, 35th Street to the south and Hill Street to the east. Subarea 3 (30 acres) is defined within 30th Street and 30th Place to the north, Vermont Avenue to the west, Jefferson to the south and Hoover Street to the east. See Figure G-1 below.

This report determined that the development proposed under the USC Development Plan would result in a less than significant impact upon existing sewer infrastructure systems, based on all criteria described in the Los Angeles CEQA Thresholds Guide and Bureau of Sanitation design guidelines.

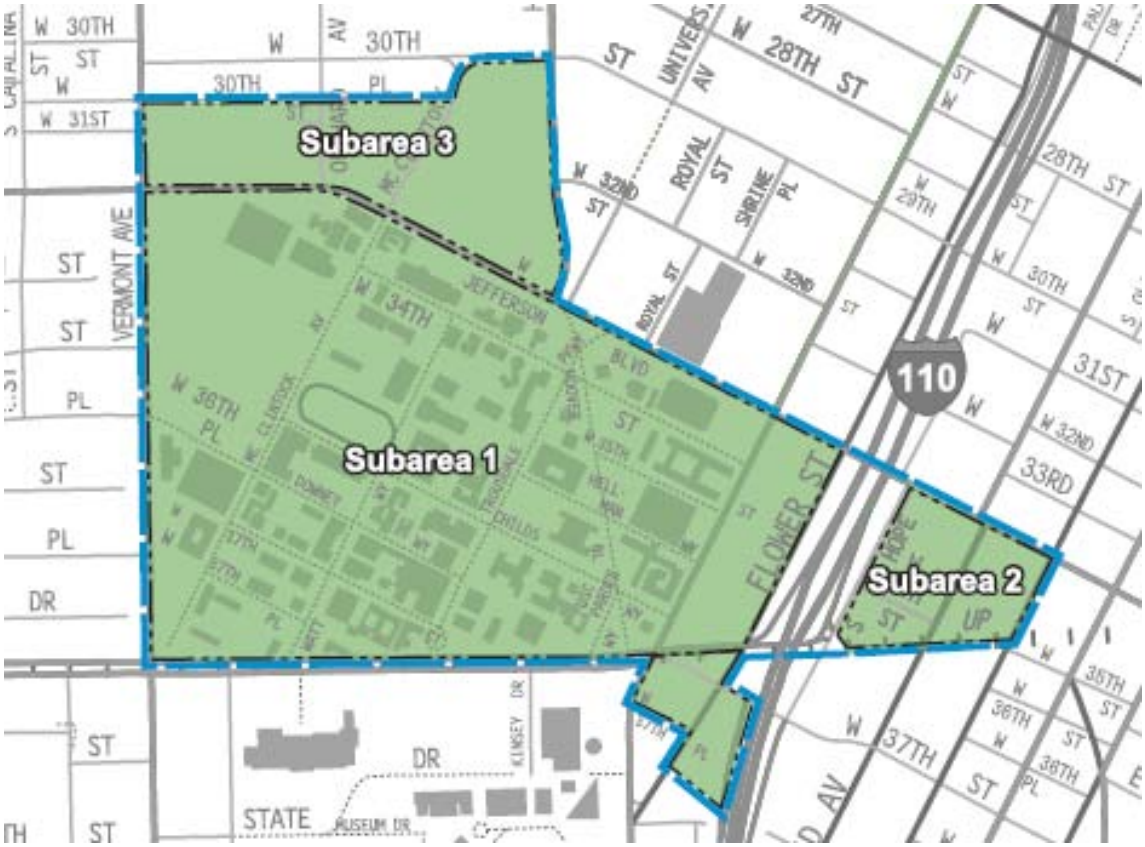

Figure G-1
Map of Proposed USC Development Plan

2. Existing Conditions Assessment

a. Existing Sewer Infrastructure Capacity

Sanitary sewer service to and from the Study Area is owned and operated by the City of Los Angeles. Drawing 1 of Appendix C shows the size of the existing sewer lines and the direction of flow in, out and within of the Study Area.

The existing local collector sanitary sewer system serving the Study Area is made up of a combination of 8-inch diameter branch lines for the local service area and 10-inch to 72-inch diameter trunk lines used for collecting and conveying discharge from these branch lines. The general direction of sewer conveyance is southwest/west from the Study Area as shown in Drawing 1 of Appendix C. The existing sewer infrastructure analyses are based on the tributary areas of the sewer system. The tributary area refers to the area served by the main trunk line, or the area that contributes to demands on a specific trunk line. Drawings 2A to 8A show the existing sewer tributary areas to these six primary collector systems.

There are six primary collector systems which have been named after the primary streets within the Study Area. These primary collector systems are listed below:

- McClintock Avenue Sewer System
- Jefferson Boulevard Sewer System
- University Avenue Sewer System
- Figueroa Street Sewer System
- 37th Street Sewer System
- 42nd Street Sewer System

The following sections give a description of the seven primary collector systems. The existing overall sewer system is shown in Drawing 1 of Appendix C. The sewer line size, year constructed, material, drainage pattern, and slope are shown on the main trunk lines only. Section 6 of Appendix C has the gauging data results from the Bureau of Sanitation.

(1) McClintock Avenue Sewer System

The main trunk line for the McClintock Avenue Sewer System within the Study Area is an 18-inch vitrified clay pipe (VCP) at the intersection of Jefferson Boulevard and McClintock Avenue. It begins with a slope of 0.1 percent and continues south to Exposition Boulevard transitioning into a 21-inch VCP with a slope of 0.1 percent. This line continues west and connects to the 44-inch VCP pipe almost 700 feet from the intersection of Exposition Boulevard and Vermont Avenue. The 44-inch VCP pipe along Exposition Boulevard has a slope of 0.2 percent.

Drawing 2 and 2A of Appendix C shows the 8-inch branch lines that occur along Orchard Avenue, Jefferson Boulevard, Hoover Avenue, 34th Street, 37th Street, and 37th Place which feed into the 18-inch and 21-inch main trunk lines. The tributary area served by this main trunk line as shown on Drawing 2A is part of Subarea 1 and Subarea 3.

Maintenance hole ID # 536-04-123 located at vacated 34th Street and McClintock Avenue had an existing gauge data of 43 percent full (gauging date: May 2009). The maintenance hole ID # 536-07-070 located close to the intersection of Normandie and Exposition Blvd had an existing gauge data of 13 percent full (gauging date: March 2007).

(2) Jefferson Boulevard Sewer System

The main trunk lines for the Jefferson Boulevard Sewer System within the Nexus Study Area originate at two major cross streets. The first trunk line is an 8-inch (VCP at the intersection of Washington Boulevard and Normandie Avenue with a slope of 0.4 percent and transition to an 18-inch VCP at the intersection of Jefferson Boulevard and Normandie Avenue with a slope of 0.5 percent. The second trunk line is a 10-inch VCP at the intersection of Washington Boulevard and Vermont Avenue with a slope of 0.4 percent and transition to a 14-inch VCP at the intersection of Jefferson Boulevard and Vermont Avenue with a slope of 0.5 percent. It eventually leaves the Study Area at the intersection of Jefferson Boulevard and Normandie Avenue as it intersects with the 18-inch VCP pipe that has a slope of 0.5 percent. Refer to Drawing 3 of Appendix C. The tributary area served by this main trunk line is part of Subarea 1 as shown on Drawing 3A.

Maintenance hole ID # 536-04-056 located along Jefferson Boulevard between Vermont Avenue and Catalina Street had an existing gauge data of 44 percent full (gauging date: July 2007).

(3) University Avenue Sewer System

The main trunk line for the University Avenue Sewer System within the Study Area originates at two locations (refer to Drawing 4 of Appendix C). The first starts at the intersection of Washington Boulevard and Hoover Street as a 24-inch VCP line (slope of 0.17 percent) and then transitions to a 52-inch brick (BRK) line at the intersection of Jefferson Boulevard and University Avenue with a slope of 0.17 percent and continues south along University Avenue (Trousdale Parkway). This line splits into a 48-inch BRK line and a 40-inch BRK line at a slope of 0.2 percent and 0.1 percent respectively. The second line originates at the intersection of Washington Boulevard and Grand Avenue as a 50-inch VCP line with a slope of 0.17 percent. This eventually connects with the 52-inch BRK line at the intersection of Jefferson Boulevard and University Avenue. The tributary area served by these 48-inch and 40-inch BRK main trunk lines is part of Subarea 1 as shown on Drawing 4A. The 48-inch trunk line is the main artery since this has the no connections from the smaller branch lines within the highlighted tributary area. The 40-inch trunk line picks up the majority of the sewage conveyed from the east of the USC Development Plan area as shown in Drawing 4A.

The 48-inch and 40-inch major trunk lines run parallel to each other conveying sewage discharge south to the 132-inch North Outfall Replacement Sewer (NORS) line at the intersection of University Avenue and Exposition Boulevard.

The 132-inch NORS main conveys flows in a westerly direction at a slope of 0.5 percent. The Bureau of Sanitation indicates that this line was recently constructed in 2005 to provide additional capacity in addition to the University Avenue Sewer System.

Maintenance holes ID # 537-05-010 for the 48-inch sewer line (intersection of 36th Street and University Avenue) and 537-05-026 for the 40-inch sewer line (located at Downey Way and University Avenue) had an existing gauge data of 48 percent and 50 percent full respectively (gauging dates: July 2007).

There is no gauging data available for the 132-inch sewer line but the Bureau of Sanitation (BoS) indicated that the recently constructed outfall has sufficient capacity for the proposed USC Development Plan project per meeting with Abdul Danishwar, Rowena Lau and Denise Chow on 04/15/2009 at BoS office.

(4) Figueroa Street Sewer System

The main trunk line for the Figueroa Street Sewer System within the Study Area starts as an 8-inch VCP at the intersection of Jefferson Boulevard and Grand Avenue at a slope of 0.63 percent and a 12-inch VCP at the intersection of Jefferson Boulevard and

Flower Street at a slope of 0.24 percent. Both lines convey sewer south towards Exposition Boulevard where it increases to a 12-inch VCP line. This line further conveys sewage to the 42nd Sewer system at the intersection of Figueroa Street and 41st Place and continues along Figueroa Street and out of the Study Area as a 10-inch VCP sewer line. This sewer system is shown in Drawing 5 of Appendix C. The tributary area served by this main trunk line is Subarea 2 and part of Subarea 1 as shown on Drawing 5A.

Maintenance hole ID # 537-13-020 has an existing gauge data of 31 percent full (gauging dates: May 2007) and Maintenance hole ID # 537-05-151 has an existing gauge data of 31 percent full (gauging dates: July 2007).

(5) 37th Street Sewer System

The main trunk line for the 37th Street Sewer System within the Study Area enters as an 8-inch line along 37th Place, 37th Street, Downey Way, 36th Street, and 35th Street. These branch lines convey sewage to the two main 8-inch VCP branch lines along Vermont Avenue, north and south of 37th Street. These two 8-inch branch lines become a 10-inch VCP at the intersection of Vermont Avenue and 37th Street, at a slope of 0.3 percent, and continue west along 37th Street. This sewer system is shown in Drawing 6 of Appendix C. Drawing 6A shows the tributary area that affects the trunk line for 37th Street Sewer System.

Maintenance hole ID # 536-08-001 at the intersection of W. 37th Street and Normandie Avenue had an existing gauge data of 8 percent full (gauging dates: February 2007).

(6) 42nd Street Sewer System

The main trunk line for the 42nd Street Sewer System within the Study Area originates as a 72-inch concrete (CONC) pipe at the intersection of Grand Avenue and 41st Place. This pipe conveys sewage westward out of the Study Area as shown in Drawing 7 of Appendix C. Drawing 7A of Appendix C shows the tributary area that affects the trunk line for 42nd Street Sewer System.

Maintenance hole ID # 536-11-086 which is 199 feet east on 41st Place from the intersection of 41st Place and Denker Avenue has an existing gauge data of 32 percent full (gauging dates: March 2009).

(7) Hyperion Treatment Plant and Los Angeles Sewer System

Sanitary sewer service for the Study Area is provided by the City of Los Angeles under the jurisdiction of the Department of Public Works. The local collector system conveys sewage to trunk lines and the North Outfall Replacement Sewer (NORS) outfalls that convey the sewage to the Hyperion Wastewater Treatment Plant maintained and operated by the Bureau of Sanitation.

b. Existing Sewer Infrastructure Capacity

Gauging data on various sewer lines were obtained from the Bureau of Sanitation, Wastewater Engineering Services Division (WESD) between the period March 2007 and May 2009. The existing sewer line capacities are based on the WESD monitoring and measuring of flows at selected points upstream and downstream of the Study Area and are shown in Table G-1 on page G-8. The locations of these studies were chosen to provide information regarding the seven primary collector sewer lines systems that will serve the proposed Specific Plan area.

The flow measurements taken at the maintenance holes indicate typical flow depths within a given sewer line recorded over a five to seven day period. See Drawings 2 through 8 of Appendix C for maintenance hole locations where flow measurement studies were performed and Appendix C for the flow measurements study results from WESD. Table G-1 gives a summary of the existing level, City maintenance hole ID# and existing system design capacity.

Per City of Los Angeles Bureau of Engineering sewer design criteria, flow within a given sewer line is acceptable when the depth of flow is 50 percent or less of the diameter of the line during peak flow periods.

(1) Existing Wastewater Generation Within Specific Plan Area

The existing average sewer loads were estimated using average sewer generation rates provided by City of Los Angeles, Bureau of Engineering, corresponding to the building occupancy types and square footages. The anticipated sewer generation rate table was used also to determine the proposed anticipated sewer generation by the USC Development Plan.

This average sewer demand was then factored to obtained the peak dry weather flow equation per Section F234 of the Bureau of Engineering Sewer Design Manual Part F (See Appendix C). This equation is as follows:

Table G-1
Summary of Existing Sewer Systems within proposed USC Development Plan

Gauged Manhole	Primary Collector[1]	Subarea Served	Diameter (in)	Pipe Material	Year Const.	Slope %	Date Gauged	Existing Level (d/D)	Existing Flow		Design Capacity (MGD)[3]	Reserve Capacity[4]
									(in)	(MGD)[2,3]		
536-04-123	McClintock Ave. SS 1	1, 3	18	VCP	1970	0.1	May-09	43%	7.74	0.77	1.00	7%
536-07-070	McClintock Ave. SS 2	1, 3	44	VCP	1970	0.1	Mar-07	13%	5.72	0.78	10.81	37%
536-04-056	Jefferson Blvd SS	1	14	VCP	1907	0.4	Jul-07	44%	6.16	0.82	1.02	6%
537-05-010	University Ave SS 1	1	48	BRK	1910	0.2	Jul-07	48%	23	17.97	19.28	2%
537-05-026	University Ave SS 2	1	40	BRK	1893	0.1	Jul-07	50%	20	8.38	8.38	0%
537-13-020	Figueroa St. SS	1 , 2	12	CONC	1931	0.2	May-07	31%	3.72	0.22	0.47	19%
536-08-001	37th Street SS	1	10	VCP	1904	0.3	Feb-07	8%	0.8	0.009	0.36	42%
536-11-086	42nd Street SS	1 , 2	72	CONC	1925	0.32	Mar-09	32%	23.04	31.88	71.88	18%

[1] *SS = sewer system*

[2] *MGD = Million of gallons per day (the rate of flow in sewer mains)*

[3] *Assumes roughness coefficient of n = 0.014 when using Haestad Methods Flow Master software*

[4] *The reserve capacity is the difference between 50 percent full and the existing percent full.*

$$Qp = 2.64 * Qa^{0.905}$$

Where:

Qa = Average Dry Weather Flow calculated from the table provided by City of Los Angeles, Bureau of Engineering. (Appendix C)

Qp = Peak Dry Weather Flow

(a) Subarea 1 – Existing Demand

For Subarea 1, the existing sewer demands were generated based on building use and floor area using the Bureau of Sanitation sewer generation tables provided by City of Los Angeles, Bureau of Engineering (Appendix C). The proposed sewer demands for Subarea 1 are estimated based upon proposed building square footages provided by USC. These average daily flows were also peaked per Section F 235 of the Sewer Design Manual – Part F. A summary of the existing sewage generation is given in Table G-2 on page G-10.

(b) Subarea 2 – Existing Demand

For Subarea 2, the existing sewer demands were generated based on building use and floor area using the Bureau of Sanitation sewer generation tables provided by City of Los Angeles, Bureau of Engineering (Appendix C). The proposed sewer demands for Subarea 2 are estimated based upon proposed building square footages provided by USC. These average daily flows were also peaked per Section F 235 of the Sewer Design Manual – Part F. A summary of the existing sewage generation is given in Table G-3 on page G-11.

(c) Subarea 3 – Existing Demand

Similar to Subarea 1 and 2, the existing demands for Subarea 3 were generated based on building use and floor area using the Bureau of Sanitation sewer generation tables provided by City of Los Angeles, Bureau of Engineering. (Appendix C). The proposed sewer demands for Subarea 3 are estimated based upon proposed building square footages provided by Matrix Environmental. These average daily flows were also peaked per section F 235 of the Sewer Design Manual – Part F. A summary of the existing demand can be found in Table G-4 on page G-12.

Table G-2
Subarea 1 Existing Sewer Demand Summary

Building Name	Type	Unit / Building SQFT[1]	Average Daily Flow Projection Rate[2]	Average Daily Flow (gpd)[3]	Peak Dry Weather Flow (gpd)[4]
Existing					
Core Campus				614,035	456,726
Galen Events Center	Event Center	187,161 SQFT	250 GPD / 1000 SQFT	46,790	44,473
	Athletic Pavilion	71,256 SQFT	250 GPD / 1000 SQFT	17,814	18,559
Gardens Building	University-serving	33,281 SQFT	200 GPD / 1000 SQFT	6,656	7,614
	Restaurant	3,423 SQFT	300 GPD / 1000 SQFT	1,027	1,403
Radisson Hotel	University-serving	6,688 SQFT	200 GPD / 1000 SQFT	1,338	1,783
	Conference	19,803 SQFT	180 GPD / 1000 SQFT	3,565	4,327
	Restaurant	8, 424 SQFT	300 GPD / 1000 SQFT	2,527	3,169
	Hotel	240 Rooms	130 GPD / Room	31,200	30,819
Parking Structure 1		371,192 SQFT	20 GPD / 1000 SQFT	7,424	8,405
Parking Structure 2		382,225 SQFT	20 GPD / 1000 SQFT	7,645	8,631
Tyler Building	University-serving	11,834 SQFT	200 GPD / 1000 SQFT	2,367	2,987
USC Credit Union	Credit Union	29,958 SQFT	150 GPD / 1000 SQFT	4,494	5,336
			Total	746,882	594,232

Notes:

1 *Existing building square footage based on USC Meridian database.*

2 *Average daily flow projection is based on Bureau of Sanitation sewer generation tables provided by City of Los Angeles, Bureau of Engineering. (Appendix C)*

3 *Gallons per day*

4 *Peak Dry Weather Flow per Section F 235 of the Bureau of Engineering Design Manual – Part F (See Appendix C).*

c. Deficiencies of the Existing Sewer Infrastructure

Per City of Los Angeles Bureau of Engineering sewer design criteria, flow within a given sewer line is acceptable when the depth of flow is 50 percent or less of the diameter of the line during peak flow periods. The existing sewer gauging data summarized in Section 2.2 shows that all of the main sewer trunk lines are all at or below 50 percent

Table G-3
Subarea 2 Existing Sewer Demand Summary

Building Name	Type	Unit / Building SQFT[1]	Average Daily Flow Projection Rate[2]	Average Daily Flow (gpd)[3]	Peak Dry Weather Flow (gpd)[4]
Existing					
Carol Little Building	University-serving	208,819 SQFT	180 GPD / 1000 SQFT	37,587	36,476
Construction Development Facility	University-serving	45,000 SQFT	180 GPD / 1000 SQFT	8,100	9,095
University Parking Center	Parking	887,778 SQFT	20 GPD / 1000 SQFT	17,755	18,503
	Storage	185,446 SQFT	20 GPD / 1000 SQFT	3,709	4,485
Armory Building	Storage	72,657 SQFT	20 GPD / 1000 SQFT	1,453	1,921
DMV Building	Storage	47,632 SQFT	20 GPD / 1000 SQFT	952	1,310
			Total	69,556	71,790

Notes:

1 *Existing building square footage based on USC Meridian database.*

2 *Average daily flow projection is based on Bureau of Sanitation sewer generation tables provided by City of Los Angeles, Bureau of Engineering. (Appendix C)*

3 *Gallons per day*

4 *Peak Dry Weather Flow per Section F 235 of the Bureau of Engineering Design Manual – Part F (See Appendix C).*

capacity. Therefore, there are no existing deficiencies within the Study Area infrastructure system.

d. Summary of City Regulations and Plans

(1) City of Los Angeles General Plan Framework

The City of Los Angeles General Plan Framework guides the update of the community plan and citywide elements, thereby providing a citywide strategy for long-term growth. As such, it addresses State and Federal mandates to plan for the future. Chapter 9, Infrastructure and Public Services, of the City's General Plan Framework identifies goals, objectives, and policies for utilities in the City. Goal 9A of Chapter 9 provides for adequate wastewater collection and treatment capacity for the City and in basins tributary to City-owned wastewater treatment facilities.

Table G-4
Subarea 3 Existing Sewer Demand Summary

Building Name	Area or Unit[2]	Average Daily Flow Projection Rate[3]	Average Daily Flow (gpd)[4]	Peak Dry Weather Flow (gpd)[5]
Existing[1]				
Century				
1 bedroom	54 DU	120 GPD / student	6,480	7,432
2 bedrooms	88 DU	160 GPD / student	14,080	15,000
La Sorbonne				
Studio	5 DU	80 GPD / student	400	598
1 bedroom	21 DU	120 GPD / student	2,520	3,161
Cardinal				
1 bedroom	78 DU	120 GPD / student	9,360	10,366
2 bedrooms	125 DU	160 GPD / student	20,000	20,608
University Village Retail	59,562 SQFT	80 GPD / 1000 SQFT	4,765	5,627
Cinema	485 Seats	4 GPD / Seat	1,940	2,495
Bank	12,953 SQFT	80 GPD / 1000 SQFT	1,036	1,414
Medical office	6,638 SQFT	250 GPD / 1000 SQFT	1,660	2,167
Restaurant / / Food Court	34,414 SQFT	300 GPD / 1000 SQFT	10,324	11,328
University-Serving	63,527 SQFT	200 GPD / 1000 SQFT	12,705	13,668
Supermarket	39,047 SQFT	80 GPD / 1000 SQFT	3,124	3,840
		Total[1]	88,394	97,704

Notes:

[1] *All existing building to be demolished.*

[2] *Existing building square footage based on onsite survey, USC Meridian database.*

[3] *Average daily flow projection is based on Bureau of Sanitation sewer generation tables provided by City of Los Angeles, Bureau of Engineering. (Appendix C)*

[4] *Gallons per day*

[5] *Peak Dry Weather Flow per on section F 235 of the Bureau of Engineering Design Manual – Part F (See Appendix C).*

(2) City of Los Angeles Integrated Resources Plan (IRP)

The City of Los Angeles Integrated Resources Plan (IRP) was created through a contemporary approach that emphasized stakeholder involvement, public input, and interdepartmental collaboration.[1] Multiple departments worked together to develop a single, integrated plan) to address the facility needs of the City's wastewater program, recycled water, and urban runoff/stormwater management through the year 2020.

With full implementation of the IRP, the Los Angeles Department of Water and Power (LADWP) and Bureau of Sanitation expect to provide ample wastewater treatment services to the City and contracting cities through the year 2020. Specifically, with the improvements identified in the IRP, the total effective capacity of the Hyperion Service Area(HSA) in 2020 would be approximately 521 mgd (consisting of 450 mgd at HTP, 71 mgd at Tillman Water Reclamation Plant (TWRP), and 0 mgd at the Los Angeles-Glendale Water Reclamation Plant (LAGRWP) [since during wet weather LAGRWP would discharge to the sewer]).[2]

(3) Sewer System Management Plan

On May 2, 2006, the State Water Resources Control Board (SWRCB) adopted the Statewide General Waste Discharge Requirements (WDRs) for publicly owned sanitary sewer systems with greater than one mile in length that collect and/or convey untreated or partially treated wastewater to a publicly owned treatment facility in California. Under WDRs, the owners of such systems must comply with the following requirements: (1) Acquire an online account from the State Water Board and report all sanitary sewer overflows online; and (2) Develop and implement a written plan referred to as a Sewer System Management Plan (SSMP) to control and mitigate Sanitary Sewer Overflows (SSOs) and make it available to any member of the public upon request in writing.

In accordance with the WDRs, the City acquired online accounts from the State Water Board and began reporting sanitary sewer overflows by the due date of January 2, 2007. A SSMP was prepared for each of the City's sanitary sewer systems and approved by the City's Board of Public Works on February 18, 2009. The goal of the SSMP for the Hyperion Sanitary Sewer System is to provide a plan and schedule to properly manage, operate, and maintain all parts of the sanitary sewer system. In addition, the SSMP will help to reduce and prevent sanitary sewer overflows as well as mitigate any sanitary sewer overflows that do occur.

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[1] *The Integrated Resources Plan replaced the City's 1991 Wastewater Facilities Plan.*

[2] *Page 8-30 Volume 4: Alternatives Development and Analysis, Integrated Resources Plan, City of Los Angeles Department of Public Works Bureau of Sanitation and Department of Water and Power, July 2004.*

(4) City of Los Angeles Municipal Code

LAMC Sections 64.11 and 64.12 require approval of a sewer permit (S-Permit) prior to connection to the sewer system. New connections to the sewer system are assessed a Sewerage Facilities Charge. The rate structure for the Sewerage Facilities Charge is based upon wastewater flow strength as well as volume. The determination of wastewater strength for each applicable project is based on City guidelines for the average wastewater concentrations of two parameters, biological oxygen demand and suspended solids, for each type of land use. Fees paid to the Sewerage Facilities Charge are deposited in the City's Sewer Construction and Maintenance Fund for sewer and sewage-related purposes including but not limited to industrial waste control and water reclamation purposes.

Section 64.15 of the LAMC requires that the City perform a Sewer Capacity Availability Review (SCAR) when any person seeks a sewer permit to connect a property to the City's sewer collection system, proposes additional discharge through their existing public sewer connection, or proposes a future sewer connection or future development that is anticipated to generate 10,000 gallons or more of sewage per day. A SCAR is an analysis of the existing sewer collection system to determine if there is adequate capacity existing in the sewer collection system to safely convey the newly generated sewage to the appropriate sewage treatment plant. If there is allotted sewer capacity available for the project, then the City's Department of Building and Safety will accept the plans and specifications for plan check upon the payment of plan check fees. If a project is eligible to receive an allocation as a non-priority project, and the monthly allotment has been used, then the project is placed on a waiting list for the next month's allotment. At the request of the project applicant, the Department of Building and Safety will accept the project's plans and specifications as acceptable for plan check even if the project has been placed on the waiting list and a sewer permit has not yet been obtained from LADPW, with the understanding that the project will not be able to connect to the City's wastewater system until capacity is available and a sewer permit issued.

In addition, the Bureau of Engineering Special Order No. SO06-0691 sets forth design criteria for sewer systems. Specifically, the order states that trunk, interceptor, outfall, and relief sewers (i.e., sewers that area 18 inches or greater in diameter) be designed for a planning period of 60-100 years and lateral sewers (sewers less than 18 inches in diameter) be designed for a planning period of 100 years. The order also requires that sewers be designed so that the peak dry weather flow (PDWF) depth, during their planning period, shall not exceed one-half (i.e., 50 percent) of the pipe diameter.

3. Impacts of the USC Development Plan on Public Sewer Infrastructure

a. Proposed Sewer Infrastructure Improvements

Currently there is no public information available indicating construction or planning of new city sewer mains specifically within the Study Area. However the City of Los Angeles Integrated Resources Plan (IRP) aims at ensuring implementation of the appropriate infrastructure, policies, and programs to reliably serve Los Angeles to 2020 and beyond. The approved Environmental Impact Report (EIR) provides for improvement such as:

- Construction of solids handling/truck loading facility at the HTP. *[Go-Project]*
- Construction of process upgrades at the HTP (new digesters, new secondary clarifiers). *[Go-if-Triggered Project]*

As mentioned previously our study area will directly impact the Hyperion Treatment Plant and the aforementioned improvements will have a positive impact to our project. Some of these IRP projects have started immediately, with others postponed until a later time when changes take place or additional information is available. Implementation is dependent on monitored triggers, including population growth, recycled water regulations, wastewater discharge regulations, Total Maximum Daily Load (TMDL) requirements, available funding, etc. As indicated in italicized brackets above, the IRP projects are classified either as a "Go-Project" or "Go-If Triggered Project." "Go-Projects" are so called because design and construction are intended to begin right away as a measure to protect public health and the environment, because associated triggers have been met. "Go-If-Triggered Projects" will be implemented if or when additional information or circumstances—such as regulatory determinations, population growth or changes in demand for sewage capacity—"trigger" the need to begin design and construction.

The IRP also includes projects identified previously, the Approved Alternative sets forth the following programmatic elements which are to be implemented through specific "Go Policy Directions":

- Implementation of increased recycled water use (non-potable and/or potential groundwater replenishment). Groundwater replenishment is contingent upon a future specific City decision to pursue groundwater replenishment and further environmental documentation).

- Implementation of dry weather runoff management through low flow diversions, smart irrigation, urban runoff plants, and treatment wetlands.

- Implementation of wet weather runoff management though capture and percolation, capture and reuse, urban runoff plants, and groundwater replenishment with non-urban runoff.

Within Phase II of the IRP, a Financial Plan, a Public Outreach Program, and a five-volume Facilities Plan were also developed. The Facilities Plan contains alternative development options and a Capital Improvement Program (CIP), as well as wastewater, water, and runoff management strategies. The CIP provides anticipated capital, operation, maintenance, project timing, and implementation strategies for tracking and monitoring triggers.

(1) Proposed Increase in Sewer Demands

(a) Subarea 1 – Proposed Demand

Projects proposed under the USC Development Plan for Subarea 1 include 1,500,000 square feet of academic use and 70,000 square feet of student housing, equivalent to 200 student beds. Based on the sewer generation rates provided by the City of Los Angeles–Bureau of Engineering (see Appendix C), the corresponding anticipated daily average sewer flows are 200[3] GPD per 1,000 gross square-feet and 75 GPD per student, respectively. As shown in Table G-5 on page G-17, the proposed USC Development Plan is anticipated to generate an additional 68,086 gallons per day for Subarea 1.

(b) Subarea 2 – Proposed Demand

The proposed sewer demands for Subarea 2 are estimated based upon proposed building square footages provided by USC. These average daily flows were also peaked per Section F 235 of the Sewer Design Manual – Part F. A summary of the proposed sewage generation is given in Table G-6 on page G-17.

[3] *The sewer generation rate table shows 180 GPD per SQFT for office and 200 GPM per 1000 SQFT for school. 200 GPM per 1000 SQFT was selected to be more conservative and be correspondent with the letter prepared by City of Los Angeles, Bureau of Sanitation (See Appendix 3).*

Table G-5
Subarea 1 Proposed Sewer Demand Summary

Building Name	Type	Unit / Building SQFT[1]	Average Daily Flow Projection Rate[2]	Average Daily Flow (gpd)[3]	Peak Dry Weather Flow (gpd)[4]
Proposed					
Academic	University-serving	3,103	18 GPD / Student	55,854	52,202
	Housing	200 Beds	75 GPD / Student	15,000	15,884
			Total	70,854	68,086

Notes:

[1] *Existing building square footage based on USC Meridian database.*

[2] *Average daily flow projection is based on Bureau of Sanitation sewer generation tables provided by City of Los Angeles, Bureau of Engineering. (Appendix C)*

[3] *Gallons per day*

[4] *Peak Dry Weather Flow per Section F 235 of the Bureau of Engineering Design Manual – Part F (See Appendix C).*

[5] *Water Consumption from Meter Data.*

Table G-6
Subarea 2 Proposed Sewer Demand Summary

Building Name	Type	Unit / Building SQFT[1]	Average Daily Flow Projection Rate[2]	Average Daily Flow (gpd)[3]	Peak Dry Weather Flow (gpd)[4]
Proposed					
Academic	University-serving	1,034	18 GPD / Student	18,612	19,309

Notes:

[1] *Existing building square footage based on USC Meridian database.*

[2] *Average daily flow projection is based on Bureau of Sanitation sewer generation tables provided by City of Los Angeles, Bureau of Engineering. (Appendix C)*

[3] *Gallons per day*

[4] *Peak Dry Weather Flow per Section F 235 of the Bureau of Engineering Design Manual – Part F (See Appendix C).*

(c) Subarea 3 – Proposed Demand

The proposed sewer demands for Subarea 3 are estimated based upon proposed building square footages provided by Matrix Environmental. These average daily flows

were also peaked per section F 235 of the Sewer Design Manual – Part F. A summary of the proposed demand can be found in Table G-7 on page G-19.

(2) Summary of Existing & Proposed Demands Per Subarea

Table G-8 on page G-20 gives the summary of the existing and proposed wastewater generated per subarea.

b. Impacts to Existing Sewer Infrastructure Due to Increase Sewer Demands

(1) Design Criteria

Peak flows within a particular sewer line are estimated by using Manning's equation for open channel flow. Flow in a given sewer trunk line is calculated by considering the depth of flow (taken from the peak recorded flow depth from WESD data), the existing pipe slopes and the assumed Manning's roughness coefficient of n = 0.014. This Manning's value was used based on Bureau of Engineering Sewer Design Manual Section F252. These calculations were performed using Haestad Methods Flow Master software. A summary of these calculations can be found in Appendix C.

Flow within a given sewer line is acceptable for planning purposes such as the USC Development Plan when the depth of flow is 50 percent or less of the diameter of the line during peak flow periods [Bureau of Sanitation Sewer Design Manual – Part F].

(2) Analysis of Sewer Capacity

Tables G-9 through G-14 on pages G-22 through G-24 give the existing flows, design capacity and proposed additional demands from the USC Development Plan project. The 50 percent design capacity as tabulated is based on the existing slope of the pipe, diameter of the pipe, Manning's roughness coefficient of n=0.014. Refer to Appendix C for the Haestad Flow Master calculations.

The proposed additional demand is based on the maximum possible new development for the proposed USC Development Plan per subarea. Tables G-9 through G-14 show these calculations of the percentage of development per subarea that can flow into the particular primary collector. The unassigned remainder of the sewage generated should be directed to other nearby sewer lines.

Table G-7
Subarea 3 Proposed Sewer Demand Summary

Building Name	Area or Unit[1]	Average Daily Flow Projection Rate[2]	Average Daily Flow (gpd)[3]	Peak Dry Weather Flow (gpd)[4]
Proposed New Sewer Demand				
University-Serving	1,034 Student	18 GPD / Student	18,612	19,309
Retail	202,000 SQFT	80 GPD / 1000 SQFT	16,160	16,992
Restaurant	45,000 SQFT	300 GPD / 1000 SQFT	13,500	14,440
Cinema	2,000 Seats	4 GPD / Seat	8,000	8,993
Supermarket	40,000 SQFT	80 GPD / 1000 SQFT	3,200	3,924
Fitness Center	20,000 SQFT	250 GPD / 1000 SQFT	5,000	5,877
Undergrad and grad studio	1,456 DU	80 GPD / DU	116,480	101,522
Undergrad and grad 1 bd	743 DU	120 GPD / DU	89,160	79,709
Undergraduate 2 bd	238 DU	160 GPD / DU	38,080	36,909
Undergraduate 4 bd	139 DU	240 GPD / DU	33,360	32,743
Graduate double studio	468 DU	80 GPD / DU	37,440	36,347
Graduate 2bd	125 DU	160 GPD / DU	20,000	20,608
Faculty 1 bd	100 DU	120 GPD / DU	12,000	12,980
Faculty 2 bd	100 DU	160 GPD / DU	16,000	16,840
Faculty 3 bd	50 DU	200 GPD / DU	10,000	11,005
Hotel	150 Rooms	130 GPD / Room	19,500	20,141
Hotel Conference Room	50,000 SQFT	180 GPD / 1000 SQFT	9,000	10,004
University-affiliated K-8 laboratory school	80,000 SQFT	200 GPD / 1000 SQFT	16,000	16,840
		Total	481,492	465,185

Notes:

[1] *Existing building square footage based on onsite survey, USC Meridian database.*

[2] *Average daily flow projection is based on Bureau of Sanitation sewer generation tables provided by City of Los Angeles, Bureau of Engineering. (Appendix C)*

[3] *Gallons per day*

[4] *Peak Dry Weather Flow per on section F 235 of the Bureau of Engineering Design Manual – Part F (See Appendix C).*

Table G-8
Wastewater Generation Per Subarea

	Existing Peak Average Daily Flow (gpd)	Proposed Incremental Peak Daily Flow (gpd)	Increase in Peak Average daily Flow (gpd)
Subarea 1	594,232	68,086	68,086
Subarea 2	71,790	19,309	19,309
Subarea 3	97,704[1]	465,185	367,481
Total	763,726	552,580	454,876

Notes:

[1] *All existing building to be demolished.*

(a) Example of Sewer Capacity Analysis

A flow measurement study was done on the 12-inch Figueroa Street Sewer System. This sewer system will primarily service part of Subarea 1 and all of Subarea 2.

The flow measurement study shows that the existing peak depth of flow is approximately 3.72-inches, or 31 percent of full pipe flow (Refer to Table G-1). Considering the pipe slope of 0.2 percent and pipe roughness coefficient n = 0.014, this translates into a flow rate within the sewer line of 0.22 MGD using Haestad Methods Flow Master software (Refer to Appendix C).

This analysis assumes 100 percent of the sewer demand generated by Subareas 1 and 2 will be served by this pipeline. This is a conservative assumption since it may not be economically feasible or physically possible to direct all the proposed Subarea 1 and 2 development to the 12-inch Figueroa Street Sewer System. The analysis considered an estimated sewage generation of 18 GPD per student, the maximum potential building occupancy would be 1,034 students for Subarea 2, resulting in an additional peak dry weather sewage flow of 19,309 GPD (Refer to Table G-6).

For the mixed use (3,103 maximum student occupancy development) Subarea 1 we considered an estimated sewage generation of 18 GPD per student and 75 GPD per student for the housing. This resulted in an additional peak dry weather sewage flow of 68,086 GPD for Subarea 1 (Refer to Table G-5). Therefore the addition of this projected sewage flow on this sewer line would be 87,395 GPD or 0.089 MGD. Since the existing flow is 0.22 MGD, this results in a future flow of 0.307 MGD (0.22 MGD + 0.089 MGD). Using Manning's Equation, this result in a potential flow depth of 4.45 inches and thus increasing the depth of flow within the pipe from 31 percent full to 37.1 percent full. This is

within the City of Los Angeles Bureau of Engineering's 50 percent (or 0.520 MGD) design criteria.

In conclusion this 12-inch Figueroa Street Sewer System can support 100 percent of Subarea 1 and 2 developments.

(b) Summary of Proposed USC Development Plan

The main sewer systems affected by the proposed USC Development Plan development are as follows:

- McClintock Avenue Sewer System
- Jefferson Boulevard Sewer System
- University Avenue Sewer System
- Figueroa Street Sewer System
- 37th Street Sewer System
- 42nd Street Sewer System

The following sections gives a summary of the results obtained for the different sewer lines within the main sewer collector systems.

McClintock Avenue Sewer System

Table G-9 on page G-22 shows that the tributary areas to the McClintock Avenue Sewer System are Subarea 1 and 3. The existing flow in the 18-inch and 44-inch sewer line is 0.77 MGD and 0.78 MGD respectively, with a 50 percent design capacity of 1.00 MGD and 10.81 MGD respectively.

The 18-inch McClintock Avenue Sewer System can support approximately 66.5 percent of Subarea 3 development (0.230 MGD) but will be unable to support the downstream subarea 1 development. This assumes that subarea 3 development forces this sewer system to reach capacity before subarea 1 development.

The 44-inch McClintock Avenue Sewer System can support 100 percent of Subarea 1 development (0.060 MGD) and 100 percent of Subarea 3 development (0.433 MGD).

Table G-9
Summary of McClintock Avenue Sewer System

Subarea Served	Dia. (in)	Existing Flow		50% Design Capacity (MGD)	Incremental Increase[1] (MGD), % of Subarea Flow Accommodated				Future Flow (MGD)	Future Flow (in)	% Full
		Depth (in)	MGD		Sub 1	Sub 2	Sub 3	Total $_{prop}$			
1, 3	18	7.74	0.77	1	0.068, 0%	0 -	0.367, 66.5%	0.435	1.205	10.10	56.1
1, 3	44	5.72	0.78	10.81	0.068, 100%	0, -	0.367, 100%	0.435	1.215	7.05	16.0

[1] *Assumes the existing Subarea 3 development is removed and replaced with the proposed Subarea 3 development. Refer to* Table G-7 for *existing and proposed wastewater generation for Subarea 3.*

Jefferson Boulevard Sewer System

Table G-10 shows that the tributary area to the Jefferson Boulevard Sewer System is Subarea 1. The existing flow in this 14-inch line is 0.82 MGD with a 50 percent design capacity of 1.02 MGD.

The 14-inch Jefferson Boulevard Sewer System can support 100 percent of Subarea 1 development (0.060 MGD).

Table G-10
Summary of Jefferson Blvd Sewer System

Subarea Served	Dia. (in)	Existing Flow		50% Design Capacity (MGD)	Incremental Increase (MGD), % of Subarea Flow Accommodated				Future Flow (MGD)	Future Flow (in)	% Full
		Depth (in)	MGD		Sub 1	Sub 2	Sub 3	Total $_{prop}$			
1	14	6.16	0.82	1.02	0.068, 100%	0, -	0, -	0.068	0.888	6.46	46.1

University Avenue Sewer System

Table G-11 on page G-23 shows that the tributary areas to the University Avenue Sewer System are Subareas 1 and 2. The existing flow in the 48-inch line and 40-inch line is 17.97 MGD and 8.38 MGD respectively. The 50 percent design capacity of the 48-inch line and 40-inch line is 19.28 MGD and 8.38 MGD respectively.

Table G-11
Summary of University Avenue Sewer System

Subarea Served	Dia. (in)	Existing Flow		50% Design Capacity (MGD)	Incremental Increase (MGD), % of Subarea Flow Accommodated)				Future Flow (MGD)	Future Flow (in)	% Full
		Depth (in)	MGD		Sub 1	Sub 2	Sub 3	Total $_{prop}$			
1 , 2	48	23	17.97	19.28	0.068, 100%	0.019, 100%	0, -	0.087	18.057	23.1	48.1
1 , 2	40	20	8.38	8.38	0.068, 0%	0.019, 0%	0 -	0.087	8.467	20.11	50.3

The 48-inch and 40-inch University Avenue Sewer System can support 100 percent of Subarea 1 development (0.060 MGD) and 100 percent of Subarea 2 development (0.019 MGD).

The 40-inch University Avenue Sewer System is presently at the 50 percent design capacity and cannot support any further development.

Figueroa Street Sewer System

Table G-12 shows that the tributary areas to the Figueroa Street Sewer System are Subareas 1 and 2. The existing flow in the 12-inch line is 0.22 MGD with a 50 percent design capacity of 0.52 MGD.

The 12-inch Figueroa Street Sewer System can support 100 percent of Subarea 1 development (0.06 MGD) and 100 percent of Subarea 2 development (0.019 MGD).

Table G-12
Summary of Figueroa Street Sewer System

Subarea Served	Dia. (in)	Existing Flow		50% Design Capacity (MGD)	Incremental Increase (MGD), % of Subarea Flow Accommodated)				Future Flow (MGD)	Future Flow (in)	% Full
		Depth (in)	MGD		Sub 1	Sub 2	Sub 3	Total $_{prop}$			
1, 2	12	3.72	0.22	0.52	0.068, 100%	0.019, 100%	0, -	0.087	0.307	4.45	37.1

37th Street Sewer System

Table G-13 shows that the tributary area to the 37th Street Sewer System is Subarea 1. The existing flow in the 10-inch line is 0.009 MGD with a 50 percent design capacity of 0.36 MGD.

The 10-inch 37th Street Sewer System can support 100 percent of Subarea 1 development (0.06 MGD).

Table G-13
Summary of 37th Street Sewer System

Subarea Served	Dia. (in)	Existing Flow		50% Design Capacity (MGD)	Incremental Increase (MGD), % of Subarea Flow Accommodated)				Future Flow (MGD)	Future Flow (in)	% Full
		Depth (in)	(MGD)		Sub 1	Sub 2	Sub 3	Total $_{prop}$			
1	10	0.8	0.009	0.36	0.068, 100%	0, -	0, -	0.068	0.077	2.21	22.1

42nd Street Sewer System

Table G-14 shows that the tributary area to the 42nd Street Sewer System is part of Subarea 1 and Subarea 2 of the USC Development Plan. The existing flow in this 72-inch line is 33.81 MGD with a 50 percent design capacity of 71.89 MGD.

The 72-inch 42nd Street Sewer System can support 100 percent of Subarea 1 and Subarea 2 development.

Table G-14
Summary of 42nd Street Sewer System

Subarea Served	Dia. (in)	Existing Flow		50% Design Capacity (MGD)	Incremental Increase (MGD), % of Subarea Flow Accommodated				Future Flow (MGD)	Future Flow (in)	% Full
		Depth (in)	(MGD)		Sub 1	Sub 2	Sub 3	Total $_{prop}$			
1 , 2	72	23.04	31.88	31.88	0.068 100%	0.019 100%	0 -	0.087	31.967	23.07	32

(c) Conclusion of Increased Sewer Demands

LA CEQA Threshold Guide considers a project to have significant impact on wastewater if: (1) the project causes a measurable increase in wastewater flows such that the depth of flow in sewer lines is equal to or greater than three-quarters of the diameter; or (2) the project's additional wastewater flows exceed the future scheduled capacity of any treatment plant. The Bureau of Sanitation sewer design guidelines limited the design flow in sewer lines to half of the pipe diameter. The latter governed our analysis conclusions.

The analysis done on the various sewer systems was conservative since it assumes 100 percent of the subarea sewer demand will be served by the respective pipeline. This is a conservative assumption since it may not be economically feasible or physically possible to direct all the proposed subarea developments to one pipeline due to spatial or existing invert conditions. As analyzed in Section 3.2.1, the USC Development Plan is anticipated to generate approximately an additional sewer loads of 0.454 million gallons per day and as shown in Section 3.3, adequate capacity is available in the McClintock 44-inch sewer system, Jefferson Boulevard 14-inch sewer system, University Avenue 48-inch sewer system, Figueroa Street 12-inch sewer system, and the 37th Street 10-inch sewer system serving the USC Development Plan project.

The McClintock Avenue sewer system has capacity in its 18-inch sewer line to accommodate approximately 66.5 percent of Subarea 3 development before reaching the 50 percent design capacity. The remaining 0.205 MGD of sewer generated by Subarea 3 development can be re-directed to or among the McClintock Avenue 44-inch sewer system (reserve capacity = 10.03 MGD), or the Jefferson Boulevard sewer system (reserve capacity = 0.200 MGD) or the University Avenue 48-inch sewer system (reserve capacity = 1.31 MGD). Since Subarea 1 development (0.06 MGD) cannot be supported by the 18-inch McClintock Avenue Sewer System this sewer flow will be either be re-directed to or among the 44-inch McClintock Avenue Sewer System (reserve capacity = 10.03 MGD), or the Jefferson Boulevard 14-inch sewer system (reserve capacity = 0.200 MGD), or the 37th Street sewer system (reserve capacity = 0.351 MGD) or the University Avenue 48-inch sewer system (reserve capacity = 1.31 MGD).

The University Avenue 40-inch sewer system is presently at the 50 percent design capacity and therefore cannot accommodate the proposed Subarea 1 and Subarea 2 development. The 0.079 MGD of sewer generated by Subarea1 and 2 can be re-directed to the 48-inch line which runs parallel to the 40-inch sewer system. This line currently has a 1.31 MGD reserve of sewer capacity. A portion of this flow can also be redirected to the 12-inch Figueroa Street sewer system which has a reserve capacity of 0.300MGD.

As discussed in Section 2.1.7, all wastewater flows generated in the USC Development Plan are conveyed to the Hyperion Wastewater Treatment Plant. The

Bureau of Sanitation letter dated July 28th 2010 (Appendix C) confirms that the Hyperion Wastewater Treatment Plant has adequate design capacity to support the USC Development Plan. Therefore the impacts to the sewer infrastructure are anticipated to be less than significant.

c. Proposed Improvements to Sewer Infrastructure Due to Increase Demands

The existing sewer infrastructure within the Study Area or in the neighboring cities would not require any improvements to accommodate the USC Development Plan. The proposed sewer demands in excess of the pipeline's 50 percent design capacity will be directed to other nearby pipes that can accommodate this increased demand. Any planned connection to existing sewer lines or new secondary lines will be reviewed by the City.

Additionally, to help minimize the impacts of the sewer demands Table G-15 on page G-27 is a list of water conservation measures, some or all of which, would be incorporated into the build out of the USC Development Plan in order to reduce the future demand for domestic water.

d. Characteristics that Distinguish the Impact Analysis and Conclusions within the Study Area from the USC Development Plan.

This evaluation of the Nexus Study Area extends beyond the requirements of CEQA, and the analysis of the sewer system in the Draft EIR is adequate for the Project. The Draft EIR and Nexus Study both use the same analysis and reached similar conclusions. The impacts within the Study Area are accounted for in the Draft EIR and there are no new impacts. The Nexus Study had one difference in that it analyzed the 42nd Street Sewer System, which was further south from the Nexus Study Area. This latter system received flow from the Figueroa Street Sewer System and it was concluded that it could support 100 percent of the Subarea 1 and Subarea 2 development. Both analyses determined that the development proposed under the USC Development Plan would result in a less than significant impact upon existing sewer infrastructure systems, based on all criteria described in the Los Angeles CEQA Thresholds Guide and Bureau of Sanitation design guidelines.

This summary is also supported by the Bureau of Sanitation (letter dated July 28, 2010, see Appendix C) which concluded that the anticipated sewer demands of the USC Development Plan can be supported by the existing sewer infrastructure and the Hyperion Treatment Plant.

Table G-15
List of Specific Water Conservation Measures

Academic/University, Hotel, & Retail/Commercial Water Conservation Measures	
Toilets	• High-efficiency toilets (maximum 1.28 gallons per flush), including dual-flush water closets
Urinals	• High-efficiency urinals (maximum 0.5 gallon per flush) or waterless urinals
Restroom Sink Faucets	• Low-flow restroom faucets with a maximum flow rate of 0.5 gallons per minute • Restroom faucets will be of a self-closing design (i.e., that would automatically turn off when not in use)
Dishwashers	• High-efficiency Energy Star-rated dishwashers within the hotel and restaurants
Clothes Washer	• High-efficiency clothes washers (water factor of 6.0 or less) within the hotel. If such an appliance is to be furnished by a tenant, this requirement shall be incorporated into the lease agreement, and USC shall be responsible for ensuring compliance.
Cooling Equipment	• Prohibit the use of single-passing cooling equipment. Prohibition of such equipment shall be indicated on the building plans and incorporated into tenant lease agreements. • Operation of cooling towers at a minimum of 5.5 cycles of concentration
Residential Water Conservation Measures	
Toilets	• High-efficiency toilets (maximum 1.28 gallons per flush)
Restroom Sink Faucets	• Low-flow restroom faucets with a maximum flow rate of 1.5 gallons per minute
Water Heaters	• Demand (tankless or instantaneous) water heater system sufficient to serve the anticipated needs of the dwellings. Such units shall be located in close proximity to points of use, as feasible.
Showerheads	• Each showerhead shall have a flow rate no greater than 2 gallons per minute
Clothes Washer	• High-efficiency clothes washers (water factor of 6.0 or less) either within individual units and/or in common laundry rooms. If such an appliance is to be furnished by a tenant, this requirement shall be incorporated into the lease agreement, and USC shall be responsible for ensuring compliance.
Dishwashers	• High-efficiency Energy Star-rated dishwashers
Swimming Pool & Spa Leak Detection System	• Leak detection system for any swimming pool, jacuzzi, or other comparable spa equipment

Section G. Public Infrastructure

2. Water

1. Introduction

This section of the Nexus Study sets forth information regarding water infrastructure in the Draft EIR for the USC Development Plan. The scope of this water section of the Nexus Study exceeds the required scope under the California Environmental Quality Act (CEQA). This section includes an assessment of existing water infrastructure in the Nexus Study Area, a description of regulations and plans regarding water, the analysis of impacts on water associated with the USC Development Plan as presented in the Draft EIR, and a comparison of impacts identified within the Draft EIR with potential impacts in the Nexus Study Area. As demonstrated by the analysis below, water impacts within the Nexus Study Area are the same as those identified in the Draft EIR. This section of the Nexus Study does not contain any new analyses or mitigation measures for the Project that are required by CEQA.

a. Water Infrastructure Study Objectives and Methodology

This section of the Nexus Study sets forth information regarding water infrastructure in the Draft EIR for the USC Development Plan for the Nexus Study Area. This report first describes the existing water mains that serve the Study Area and identifies any existing deficiencies of the infrastructure system. Then the report analyzes how the USC Development Plan will impact the water infrastructure and identify any necessary improvements.

b. USC Development Plan Water Infrastructure Study

In February 2010, KPFF Consulting Engineers prepared a Water Infrastructure Study report as a part of supporting documents to the USC Development Plan Draft EIR. This report determined that the development proposed under the USC Development Plan would result in a less than significant impact upon water infrastructure systems, based on all criteria described in the Los Angeles CEQA Thresholds Guide.

c. LADWP Water Supply Assessment

In accordance with Senate Bill 610, Los Angeles Department of Water and Power prepared a Water Supply Assessment for the proposed USC Development Plan in December 2009. This assessment states the estimated increase in water demand due to the project falls within the water demand growth projection of the City's Urban Water Management Plan, and LADWP's projected water supply through the year 2030 is anticipated to meet this demand.

2. Existing Conditions Assessment

Water service to the Study Area is provided by the City of Los Angeles Department of Water and Power (LADWP). The Study Area is a part of the LADWP's 386 Service Zone.

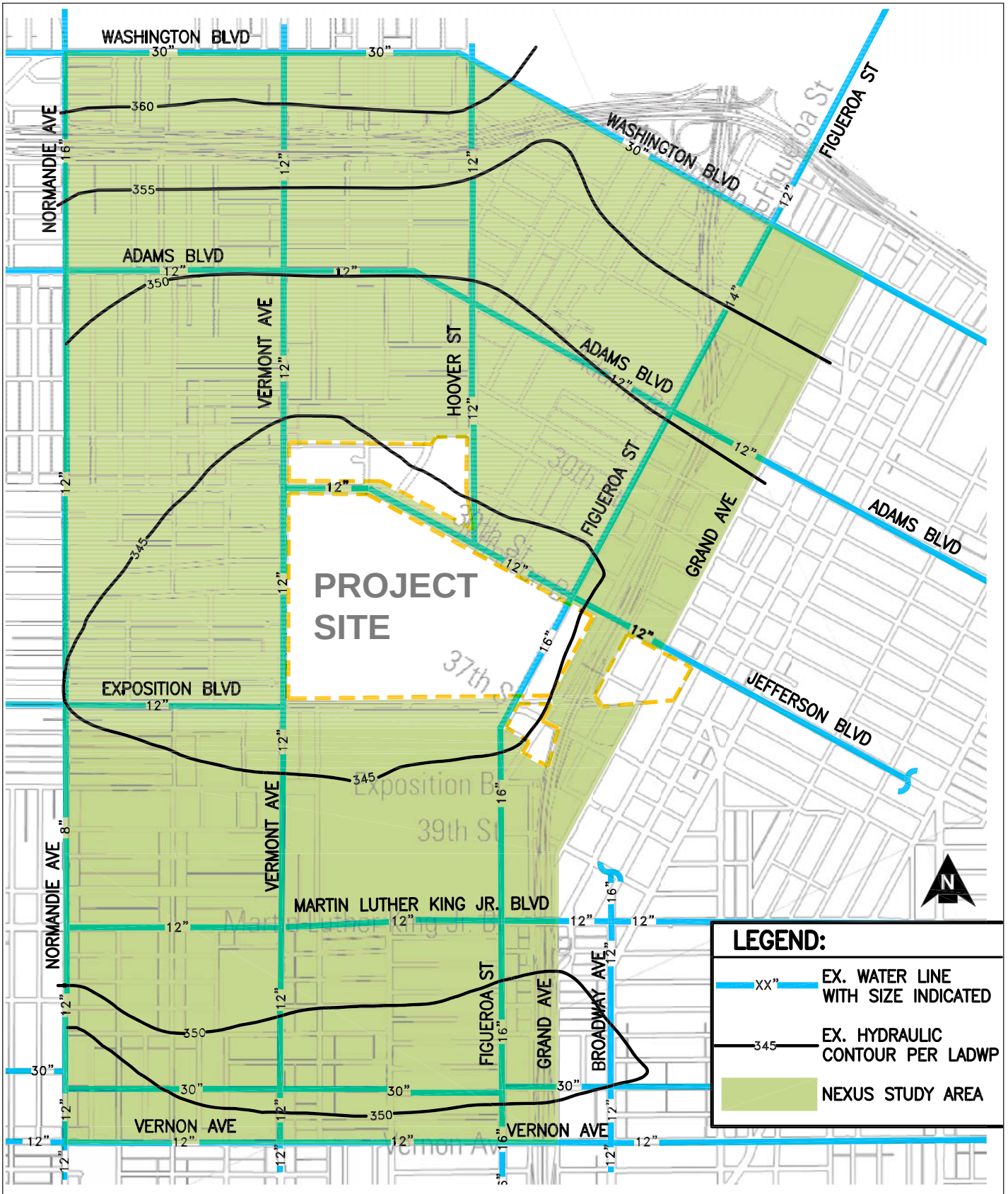
a. Existing Water Infrastructure

The overall layout of water mains within the Study Area generally follows the street grid layout. The water mains vary in size, ranging between 8 inches to 16- nches, and there are two 30-inch trunk mains[4] located within the Study Area; one on Washington Boulevard and the other on 43rd Street. The existing LADWP water mains within the Study Area are shown in Figure G-2 on page G-30.

b. Deficiencies of the Existing Water Infrastructure

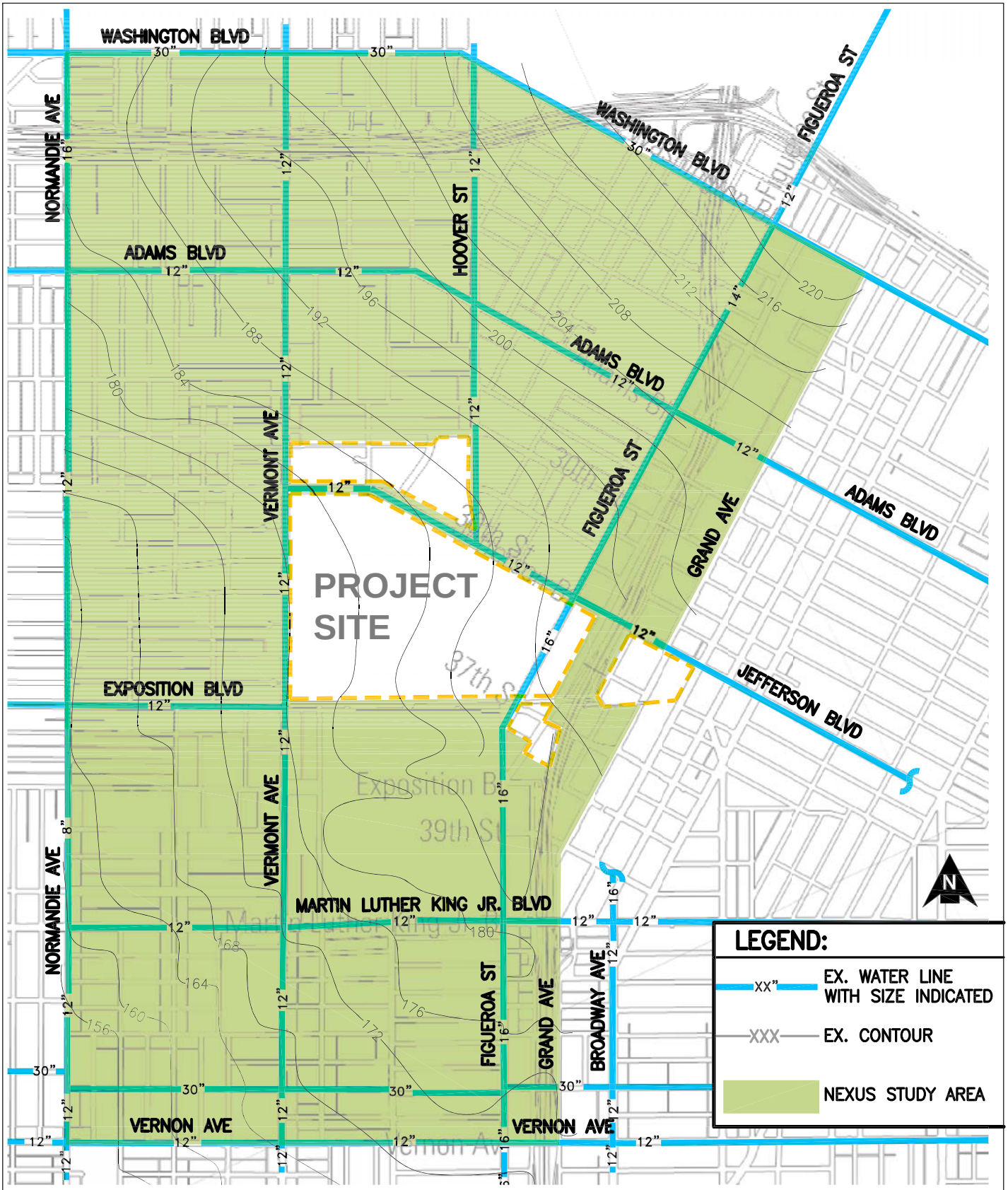
Hydraulic grade is defined as the sum of pressure heads and gravitational heads. Based on consultation with LADWP, it is estimated that the hydraulic grade within the Study Area ranges from 340 to 365 (Figure G-2). With this hydraulic grade data and elevations obtained from the Bureau of Engineering NavigateLA website (Figure G-3 on page G-31), approximate water pressure contours within the Study Area were calculated.

[4] *Trunk mains are water lines greater than 24 inches in diameter.*



Source: Kpff Consulting Engineers, 2010.

Figure G-2
Map of Existing Water Infrastructure and Existing Hydraulic Contours



Source: Kpff Consulting Engineers, 2010.

Figure G-3
Map of Existing Contours

Hydraulic Grade = (P / γ) + Z

Or,

= P x 2.31 + Z

Where:

Hydraulic Grade is in feet

P = Pressure (psi)

γ = Specific Weight (62.4 lb/ft^3 for water at a room temperature)

Z = Elevation (ft)

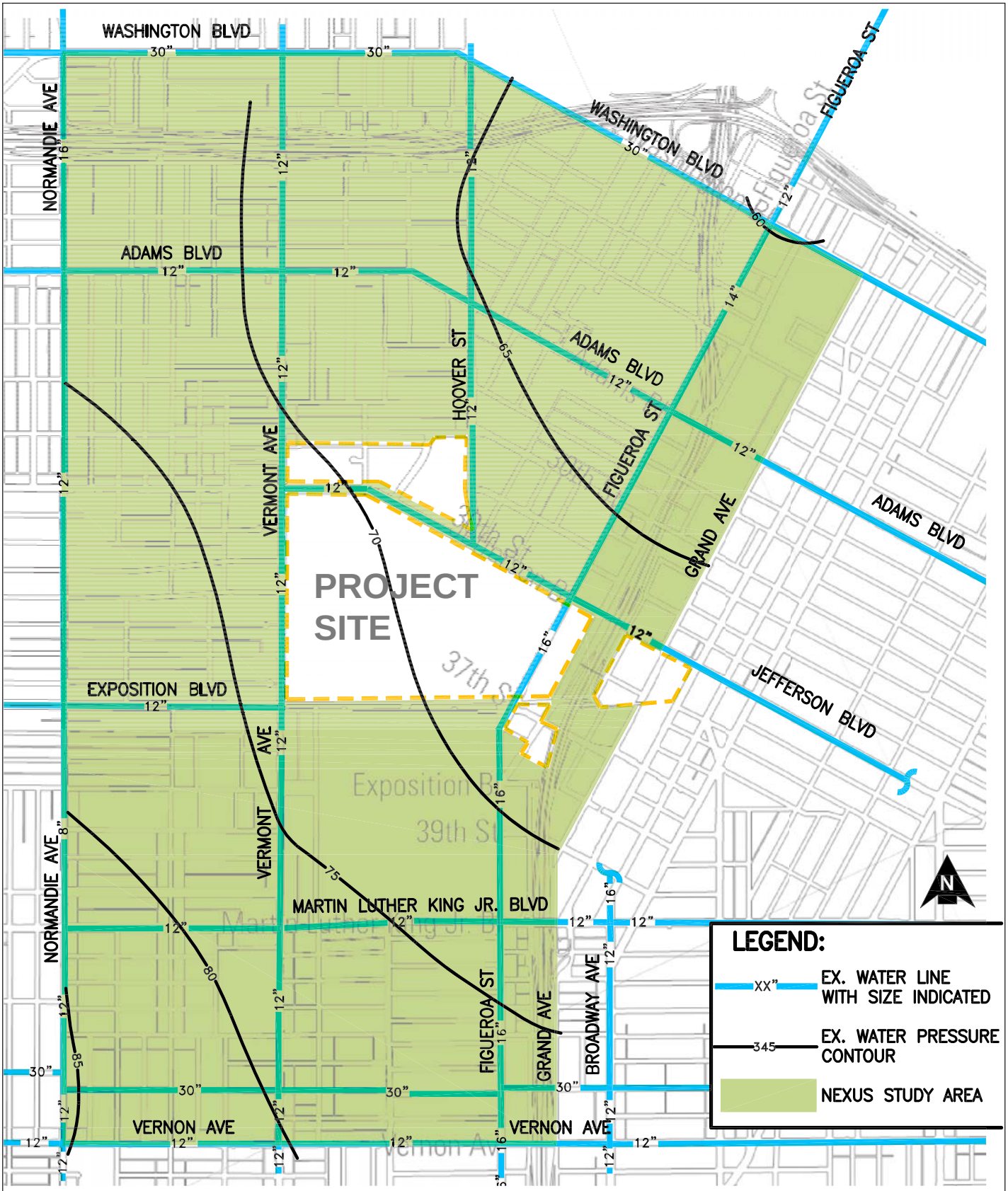
As shown in Figure G-4 on page G-33, the existing water pressure within the Study Area is expected to range from 60 psi to 85 psi. This range is above the minimum water pressure of 15 psi required by Uniform Plumbing Code, and it also exceeds the typical design value of 40 psi for domestic uses. During a fire emergency, the minimum water pressure required by City of Los Angeles Fire Department is 20 psi. Therefore, it is concluded that there are no existing deficiencies within the Study Area infrastructure system.

c. City Regulations and Plans

(1) LADWP 2005 Urban Water Management Plan

In accordance with the California Urban Water Management Planning Act, the LADWP has prepared the 2005 Urban Water Management Plan (UWMP). The UWMP details the LADWP's efforts to promote the efficient use and management of its water resources. LADWP's UWMP used a service area-wide method in developing its water demand projections. This methodology does not rely on individual development demands to determine area-wide growth. Rather, the growth in water use for the entire service area was considered in developing long-term water projections for the City of Los Angeles through the year 2030.

The UWMP is required to be updated every five years, and LADWP is currently in the process of updating its UWMP. In the new 2010 UWMP, the LADWP will develop a revised demand forecast that will factor in the water demand for which all water supply



Source: Kpff Consulting Engineers, 2010.

Figure G-4
Approximate Contours
Existing Water Pressure

assessments have been prepared in addition to future demands. Water supply planning will be based on meeting these long-term demands.

(2) Los Angeles Municipal Code

The City has adopted several ordinances in the LAMC in an effort to reduce water consumption. Specifically, the City of Los Angeles Plumbing Code (Chapter IX, Article 4, of the LAMC) incorporates by reference the California Plumbing Code. As previously described, maximum flow rates for water fixtures are established under the California Plumbing Code. Ordinance No. 180,822 was recently adopted and establishes water efficiency requirements for new development and renovation of existing buildings and mandates installation of high efficiency plumbing fixtures in residential and commercial buildings. In addition, City Ordinance No. 163,532 (Chapter XII, Article IV, of the LAMC) requires a 10 percent reduction in irrigation for large turf areas (three acres of turf or greater), among other water-conserving measures.

The City's Water Rate Ordinance establishes water rates based on a two tier system to encourage water conservation. The motivation for the two-tier rate structure of LADWP is: (1) to induce efficient water use; and (2) to confront future droughts without having to increase rates for those customers practicing conservation and thus remaining within the first tier usage block. Under the rate structure, LADWP customer class (e.g., single-dwelling unit customer, multiple-dwelling unit customer, commercial customer) are given a Tier 1 water allotment. If the customer's water consumption are within that Tier 1 water allotment, the lower Tier 1 water rates apply. Customers who exceed their Tier 1 water allotment are charged the higher Tier 2 water rates. As of June 1, 2009, LADWP implemented Shortage Year Rates which are applied to all LADWP customers. Under Shortage Year Rates, the Tier 1 water allotments of all customers were reduced by 15 percent. The intent of the Shortage Year Rates is to provide an incentive for customers to save money by conserving water.[5]

(3) Integrated Resource Plan

The Metropolitan Water District (MWD), one of the four primary sources for water supplies in Los Angeles, first adopted its Integrated Resources Plan (IRP) in 1996. The IRP is updated every five years. The most updated IRP, which was adopted in 2004, discussed local water supply initiatives (e.g., local groundwater conjunctive use programs) and established a buffer supply to mitigate against the risks associated with implementation

[5] *Los Angeles Department of Water and Power, Water Rates, http://www.ladwp.com/ladwp/cms/ladwp001155.jsp.*

of local and imported water supply programs. The 2004 IRP noted that future water supply reliability depends not only upon actions by MWD to secure reliable imported supplies, but also further development of local projects by local agencies. MWD supported this conclusion by providing detailed updates for each of its resource categories, restating dry year IRP targets and examining current considerations, changed conditions, implementation strategies and identified programs, implementation challenges and cost information.

MWD is currently updating the 2004 IRP.[6] The updated IRP will address existing and new challenges such as the continued drought conditions as well as Delta smelt litigation and climate change. As can be seen by these ongoing studies, MWD is continually updating its plans to meet ever-changing challenges to its water supplies.

3. Impact of the USC Development Plan on Public Infrastructure

a. Proposed Water Infrastructure Improvements

Currently there is no public information available indicating construction or planning of new LADWP water mains specifically within the Study Area. However, the LADWP Ten-Year Capital Improvement Program does indicate that for fiscal years ending 2009–2012, LADWP is budgeting approximately $91 million for new water distribution mains within their entire system; i.e., lines with diameters under 20 inches. For this same period, LADWP has budgeted approximately $168 million for new water transmission lines within their entire system; i.e., lines with diameters 20 inches and over. The LADWP distribution system within the Study Area would benefit from these improvements and could potentially provide better pressure and flow availability around the Study Area.

b. Proposed Increase in Water Demands

The proposed development under the USC Development Plan includes approximately 2,500,000 square feet of academic use, 350,000 square feet of retail and commercial use, 2,135,000 square feet of housing (providing up to 5,400 student beds and 250 faculty units), a 150-room hotel with a 50,000 square feet conference area, and 80,000 square feet of educational academy.

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[6] *Metropolitan Water District, Integrated Resources Plan, http://www.mwdh2o.com/mwdh2o/pages/yourwater/irp/.*

In the Water Supply Assessment dated December 1, 2009, the LADWP estimated the increase in water demand due to the Development Plan to be 492,812 gallons per day (342.2 gallons per minute). The summary of the water demand calculation in the assessment is shown in Table G-16 on page G-37.

c. Impacts to Existing Water Infrastructure Due to Increased Water Demand

KPFF Consulting Engineers prepared a Water Infrastructure Study for the USC Development Plan and analyzed the capacity of the existing LADWP water infrastructure around the project site using Service Availability Request (SAR) results from LADWP. According to this study, the available water pressure around the Development Plan is well above the minimum required per code for both normal operation and fire-emergency scenario, and when the estimated net increase in water demand was added to the LADWP water system, the impact was considered to be a less than significant.

In addition, LADWP's Water Supply Assessment states that the anticipated water demand increase of 492,812 gallons per day (342.2 gallons per minute) falls within the water demand growth projection of the City's Urban Water Management Plan, and LADWP's projected water supply through the year 2030 is anticipated to meet this demand. Therefore it can be concluded that the proposed Development Plan will have less than significant impact on the water infrastructure within the Study Area.

d. Proposed Improvements to Water Infrastructure Due to Increased Demand

Based on analysis of hydraulic grade contours, it is determined that there are no existing deficiencies in the LADWP water infrastructure within the Study Area. Moreover, both Water Infrastructure Study for the USC Development Plan prepared by KPFF Consulting Engineers and Water Supply Assessment prepared by LADWP conclude that the anticipated water demand will not have a significant impact to the Study Area. Therefore USC Development Plan will not require improvements to public water infrastructure within the Study Area.

Table G-16
Proposed Water Demand Summary

TABLE I
University of Southern California Specific Plan Project
Calculated Total Additional Water Demand

Existing Use[1]	Quantity	Unit	Water Use Factor[2] (gpd/unit)	Existing Water Use (gpd)	(af/y)
Academic/University	30,828	student	18	554,904	621.61
Dormitory	200	student	75	15,000	16.80
Studio	5	du	80	400	0.45
Residential 1 bd	153	du	120	18,360	20.57
Residential 2 bd	213	du	160	34,080	38.18
Retail	59,562	sf	0.08	4,765	5.34
Bank	12,953	sf	0.08	1,036	1.16
Cinema	356	seat	4	1,424	1.60
Medical Office	6,638	sf	0.25	1,660	1.86
Grocery Store	39,047	sf	0.08	3,124	3.50
Food Court	461	seat	20	9,220	10.33
Restaurants	686	seat	30	20,580	23.05
			Existing Total	**664,552**	**744.4**
Proposed Use[1]	**Quantity**	**Unit**	**Water Use Factor[2] (gpd/unit)**	**Proposed Water Use (gpd)**	**(af/y)**
Academic/University	36,000	student	18	648,000	725.90
Educational Academy (k-8)	540	student	8	4,320	4.84
University/Academic Total				**652,320**	**730.74**
Retail	202,000	sf	0.08	16,160	18.10
Sit down restaurants	1,700	seat	30	51,000	57.13
Food Court	400	seat	20	8,000	8.96
Cinema	2,000	seat	4	8,000	8.96
Grocery Store	40,000	sf	0.08	3,200	3.58
Fitness Center	20,000	sf	0.80	16,000	17.92
Hotel	150	room	130	19,500	21.84
Hotel Coffee Shop	50	seat	30	1,500	1.68
Hotel Conference Center	29,000	sf	0.25	7,250	8.12
Hotel Fitness Center	2,000	sf	0.80	1,600	1.79
Retail/Restaurant/Common Total				**132,210**	**148.10**
Student Housing/Dormitory	200	student	75	15,000	16.80
Undergraduate and Graduate Studio[3]	1,456	du	68	98,717	110.58
Undergraduate and Graduate 1 bd	743	du	120	89,160	99.88
Undergraduate 2 bd[3]	238	du	238	56,644	63.45
Undergraduate 4bd[3]	139	du	408	56,712	63.53
Graduate Double Studio[3]	468	du	136	63,648	71.30
Graduate 2 bd	125	du	170	21,250	23.80
Faculty 1 bd	100	du	130	13,000	14.56
Faculty 2 bd	100	du	180	18,000	20.16
Faculty 3 bd	50	du	230	11,500	12.88
Residential Total				**443,631**	**496.96**
Cooling Tower				38,186	42.78
Landscaping Total[4]	107,450	sf		7,640	8.56
			Total Potable Water Demand	**1,273,987**	1,427.1
			Less Existing Use	**-664,552**	**-744.4**
			Less Additional Conservation[5]	**-116,623**	**-130.6**
			TOTAL ADDITIONAL WATER DEMAND	**492,812**	**552.1**

[1] Provided by the City of Los Angeles Department of City Planning.
[2] Based on City of Los Angeles Department of Public Works, Bureau of Sanitation Sewer Generation Rates table - 3/20/2002. Uses not listed are estimated by the closest type of use available in the table.
[3] Water Use Factor has been adjusted based on unit type and projected occupancy
[4] Landscaping water use is estimated by Landscape Water Management Program v1.4 developed by Irrigation Training and Research Center of California Polytechnic State University, San Luis Obispo.
[5] Water Conservation due to additional conservation commitments agreed to by the developer. See Table II.

Abbreviations:
gpd - gallons per day sf - square feet af/y - acre feet per year bd - bedroom du - dwelling unit

(Above table was excerpted from Table 1 of the Water Supply Assessment For the University of Southern California Development Plan Project, Los Angeles Department of Water and Power)

e. Characteristics that Distinguishes the Impact Analysis and Conclusions within the Study Area from the USC Development Plan.

This evaluation of the Nexus Study Area extends beyond the requirements of CEQA, and the analysis of water infrastructure in the Draft EIR is adequate for the Project. The Water Infrastructure Report in the USC Development Plan obtained existing and proposed water pressures directly from LADWP through Service Availability Request at the existing meter locations. For the Nexus Study, existing water pressures were estimated through analysis of hydraulic grade contours in order to accommodate the larger study area. Although two reports took two different approaches, the conclusions reached in this Nexus Study do not differ from those presented in the Water Infrastructure Report. Both reports are also supported by the LADWP's Water Supply Assessment which concluded that the anticipated water demand due to the Development Plan will not have a significant impact to the Study Area.

3. Storm Drain Needs

1. Introduction

This section of the Nexus Study sets forth information regarding hydrology in the Draft EIR for the USC Development Plan. The scope of this hydrology section of the Nexus Study exceeds the required scope under the California Environmental Quality Act (CEQA). This section includes an assessment of existing drainage infrastructure in the Nexus Study Area, a description of regulations and plans regarding hydrology, the analysis of impacts on drainage infrastructure associated with the USC Development Plan as presented in the Draft EIR, and a comparison of impacts identified within the Draft EIR with potential impacts in the Nexus Study Area. As demonstrated by the analysis below, hydrology impacts within the Nexus Study Area are the same as those identified in the Draft EIR. This section of the Nexus Study does not contain any new analyses or mitigation measures for the Project that are required by CEQA.

a. Hydrology Study Objectives and Methodology

This section of the Nexus Study sets forth information regarding hydrology in the Draft EIR for the USC Development Plan for the Nexus Study Area. This report first describes the existing storm drain infrastructure that serves the Study Area and identifies any existing deficiencies of the infrastructure system. Then the report analyzes how the USC Development Plan will impact the storm drain infrastructure and identify any necessary improvements.

2. Existing Conditions Assessment

a. Existing Storm Drain Infrastructure

The Study Area is comprised of a number of watersheds, which are part of the larger Ballona Creek watershed. Stormwater runoff generally drains in a southwesterly direction to its outlet at Ballona Creek. Runoff is conveyed by a non-erosive storm drain system consisting of catch basins and storm drain piping.

There are nine storm drain trunk lines that convey storm water runoff within the Study Area. These storm drain trunk lines as shown in Table G-17 are:

Table G-17
Storm Drain Lines Within Study Area

Jefferson Boulevard Storm Drain
35th Street Storm Drain
McClintock Avenue Storm Drain
Figueroa Street Storm Drain
University Avenue Storm Drain
Orchard Avenue Storm Drain
Budlong Avenue Storm Drain
Vernon Avenue Storm Drain
MLK Boulevard Storm Drain

The direction of flow, size and material type of lines are shown in Exhibit 1B of Appendix D.

These storm drain trunk lines eventually discharge stormwater into the Santa Monica Bay, via Ballona Creek. The large diameter pipelines and box culverts are either managed by the Los Angeles County Department of Public Works or the Los Angeles County Flood Control District.

Of these nine storm drain trunk mains within the Study Area, three of these main trunk mains convey storm water runoff from the USC Development Plan area towards the western edge of the Study Area. The three storm drain trunk mains as shown in Table G-18 are:

Table G-18
Storm Drain Trunk Mains Serving USC Development Plan Area

Jefferson Boulevard Storm Drain
35th Street Storm Drain
McClintock Avenue Storm Drain

Two of these trunk mains intercept additional stormwater runoff downstream of the USC Development Plan area and are described in more detail below. These are the 35th Street Storm Drain System and the McClintock Avenue Storm Drain System. For the purposes of this study, it was assumed that from the point the Jefferson Boulevard Storm Drain splits off from the 35th Street Storm Drain, it does not intercept any additional stormwater. Therefore, the USC Development Plan will not contribute any additional flows to the Jefferson Boulevard Storm Drain and there are no impacts to this trunk main.

(1) 35th Street Storm Drain

The 35th Street Storm Drain watershed is the largest of the Study Area watersheds and is categorized by the connections to the 35th Street Storm Drain downstream of and within the USC Development Plan area. It collects runoff from a long, narrow area that stretches approximately 3.1 miles from the intersection of Normandie Avenue and Jefferson Boulevard at the southwest to the intersection of Witmer Street and 2nd Street to the northeast, as well as the majority of the USC Development Plan area. The 35th Street Trunk Main watershed is approximately 1,491 acres (see Watershed Exhibit 3 of Appendix D).

There are five storm drain pipelines that either start within or enter the Study Area at the north. These pipes range in sizes from 27-inch reinforced concrete pipe (RCP) to 66-inch RCP and generally travel in a southwesterly direction beginning north of the I-10 Freeway and adjacent to the west side of the I-110 Freeway. These pipes meet at the intersection of Adams Boulevard and Budlong Avenue where they empty into a 90-inch RCP storm drain that travels south in Budlong Avenue—this is the Budlong Storm Drain per Exhibit 1 of Appendix D. This pipe joins the 35th Street Storm Drain at the intersection of Budlong Avenue and 35th Street where the 35th Street Storm drain is a 100-inch-wide by 115-inch-high reinforced concrete box (RCB) storm drain. There are two other minor connections to this storm drain downstream of USC Development Plan area where 35th Street intersects Vermont Avenue and Normandie Avenue (see Exhibit 1 of Appendix D).

The 35th Street Storm Drain also travels through the USC Development Plan area where it enters the Study Area at the intersection of Jefferson Boulevard and Figueroa Avenue as a 96-inch-wide by 100-inch-high RCB storm drain and exits the USC Development Plan area at the intersection of Vermont Avenue and 35th Street as an 89-inch-wide by 93-inch-high RCB storm drain.

(2) McClintock Storm Drain

The McClintock Avenue Storm Drain watershed is approximately 132 acres. It includes the areas adjacent to Exposition Boulevard east of Vermont Avenue extending approximately half way to Figueroa Street. It also includes the area downstream of the USC Development Plan area bordered by Normandie Avenue to the west, Exposition Boulevard to the north, Vermont Avenue to the east, and 39th Street to the south (see Exhibit 3 of Appendix D).

The McClintock Avenue Storm Drain is an LACFCD owned and maintained storm drain that begins inside the USC Development Plan area at the intersection of McClintock Avenue and Downey Way as a 39-inch RCP storm drain. It travels southwest where it exits the USC Development Plan area at the intersection of Vermont Avenue and Exposition Avenue and proceeds south in Vermont Avenue. It then turns to the west in 39th Street towards the western edge of the Nexus Study Area as it exits the area as a 60-inch RCP storm drain (see Exhibit 1 of Appendix D).

(3) USC Development Plan Upstream Watersheds

There are approximately 2,191 acres of tributary drainage area upstream of the USC Development Plan area. Storm water runoff from this area drains to the existing LACFCD owned and maintained storm drain in Jefferson Boulevard and to the USC owned and maintained storm drains within the Development Plan area that drain to the 35th Street Storm Drain and the McClintock Avenue Storm Drain.

The upstream tributary area is divided into five watersheds. They are called the Jefferson Boulevard, Figueroa Street, University Avenue, Orchard Avenue, and Exposition Boulevard Storm Drain Systems and are shown in Exhibit 2 of Appendix D.

The Jefferson Boulevard Drain System converges with the Figueroa Street Storm Drain System at the intersection of Jefferson Boulevard and Figueroa Street. Here, the 96-inch-wide by 100-inch-high RCB storm drain in Jefferson Boulevard splits with 16 percent of the flow continuing in Jefferson Boulevard and 84 percent of the flow turning south in Figueroa Street. These percentages are based on the flow capacities of the downstream portions of the junction structure where the pipe splits. A 72-inch RCP storm drain in Figueroa Street, which concludes the Figueroa Street Storm Drain System, turns west in Jefferson Boulevard and becomes an LACFCD-owned and -maintained 78-inch RCP storm drain. The storm drain that splits from the Jefferson Boulevard Storm Drain System and continues in Jefferson Boulevard connects to the LACFCD storm drain. The portion that turns south in Figueroa Street remains a 96-inch-wide by 100-inch-high RCB storm drain,

which turns west into the USC Development Plan area approximately 340 feet south of Jefferson Boulevard and becomes the 35th Street Storm Drain System.

The LACFCD storm drain continues in Jefferson Boulevard through the entirety of the Study Area. At the intersection with University Avenue, another split occurs with 94 percent of the flow continuing in Jefferson Boulevard and 6 percent of the flow turning south into the USC Development Plan Area. At this location, a 69-inch RCP storm drain from the University Avenue Storm Drain System turns to the west and connects to the LACFCD storm drain in Jefferson Boulevard, which becomes a 90-inch RCP storm drain. The portion of the split that turns south into the USC Development Plan area connects to the 35th Street Storm Drain System and becomes an 89-inch-wide by 93-inch-high RCB storm drain.

The LACFCD storm drain accepts another connection at the intersection of Jefferson Boulevard and McClintock Avenue, where the 36-inch RCP storm drain from the Orchard Avenue Storm Drain System connects to the LACFCD storm drain in Jefferson Boulevard. The storm drain continues in Jefferson Boulevard where it eventually becomes a 123-inch-wide by 102-inch-high RCB storm drain at the intersection with Budlong Avenue before leaving the Study Area at Normandie Avenue.

The 89-inch-wide by 93-inch-high RCB storm drain in the USC Development Plan Area collects runoff from the area and is connected to by the Exposition Boulevard Storm Drain system prior to leaving the area. It then continues in 35th Street to the end of the Study Area where it exits as a 100-inch-wide by 115-inch-high RCB storm drain.

b. Existing Infrastructure Capacity

(1) Rainfall Zone

According to the LACDPW Hydrology Manual, the 50-year 24-hour isohyet[7] is approximately 5.45 inches.

(2) Soil Type and Characteristics

Based on the LACDPW Hydrology Manual Figure 1-H1.18, the soil classification of the Study Area is mapped as soil type number 6, which is called Hanford Fine Sandy Loam.

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[7] *Isohyet: a line drawn on a map connecting points that receive equal amounts of rainfall.*

Based on the Geotechnical Engineering Evaluation prepared by Geotechnologies, Inc. dated May 14, 2009, the soils underlying the USC Development Plan area generally consist of silty sands and sands. Artificial fill varies from 0 to 17.5 feet. Groundwater levels below the USC Development Plan area are deeper than 70 feet.

(3) Design Criteria

The hydrology analysis for both the existing conditions and the USC Development Plan were performed using the guidelines as outlined in the Los Angeles County Department of Public Works Hydrology Manual.

The analysis of the USC Development Plan includes calculation of stormwater runoff during a 50-year storm event. The Modified Rational Method was used to calculate storm water runoff. The "peak" (maximum value) runoff for a drainage area is calculated using the formula,

Q = CIA

Where,

Q = Volumetric flow rate (cfs)

C = Runoff coefficient (dimensionless)

I = Rainfall Intensity at a given point in time (in/hr)

A = Watershed area (acres)

The Modified Rational Method assumes that a steady, uniform rainfall rate will produce maximum runoff when all parts of the watershed are contributing to outflow. This occurs when the storm event lasts longer than the time of concentration. The time of concentration (Tc) is the time it takes for rain in the most hydrologically remote part of the watershed to reach the outlet. The method assumes that the runoff coefficient (C) remains constant during a storm.

The Los Angeles County of Department of Public Works developed a time of concentration calculator, Tc Calculator (*TC_calc_depth.xls, July 2006*), to automate time of concentration calculations as well as the peak runoff rates and volumes using the Modified Rational Method design criteria as outlined in the Hydrology Manual. The data input requirements include: sub-area size, soil type, land use, flow path length, flow path slope and rainfall isohyet.

Table G-19 summarizes the existing peak runoff and volume values for the 50-year storm event in the 35th Street Storm Drain Watershed.

Table G-20 summarizes the existing peak runoff and volume values for the 50-year storm event in the McClintock Avenue Storm Drain Watershed.

Table G-19
35th Street Storm Drain Watershed Existing Peak Runoff for the 50-Year Storm Event

Basin	Area (acres)	Impervious Ratio	Soil Type	Length (ft)	Slope (ft/ft)
1	2,438	0.86	6	15,700	0.0027
Isohyet (in.)	**Tc-calculated (min.)**	**Intensity (in./hr)**	**Cu**	**Cd**	**Flowrate (cfs)**
5.5	30	1.41	0.66	0.87	2,990.69

Table G-20
McClintock Avenue Storm Drain Watershed Existing Peak Runoff for the 50-Year Storm Event

Basin	Area (acres)	Impervious Ratio	Soil Type	Length (ft)	Slope (ft/ft)
1	132	0.86	6	4585	0.005
Isohyet (in.)	**Tc-calculated (min.)**	**Intensity (in./hr)**	**Cu**	**Cd**	**Flowrate (cfs)**
5.5	30	1.41	0.66	0.67	161.92

c. Deficiencies of the Existing Infrastructure

The following graphic (Figure G-5 on page G-46) from the City of Los Angeles NavigateLA website indicates that a portion of the Nexus Study area falls within the 500-year return period/frequency flood zone (darker shaded area); however, no portion of the site is within the 100-year return period/frequency flood zone. This indicates that the existing storm drainage infrastructure within the Study Area is able to convey stormwater for the 100-year storm event within the pipes and street networks, and the likelihood of having significant amounts of flooding during the 100-year storm event caused by any deficiencies in the existing storm drainage infrastructure is minimal.

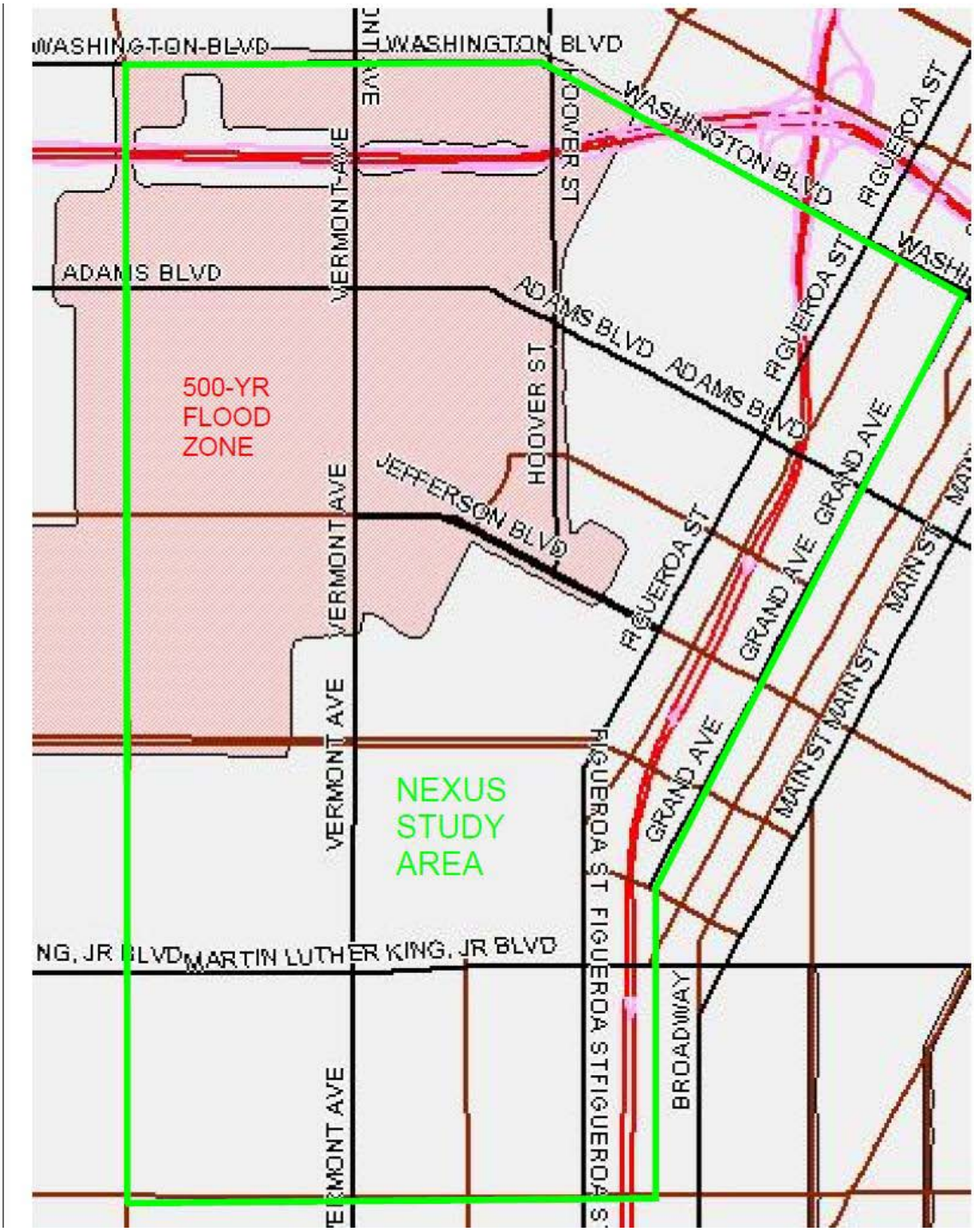

Figure G-5
Nexus Study Flood Zone Areas

d. City Regulations and Plans

(1) County of Los Angeles Hydrology Manual

Drainage and flood control in the area of the Project site is regulated by the Los Angeles County Department of Public Works and the City of Los Angeles Department of Public Works. The County has jurisdiction over regional drainage facilities and drainage facilities.

The Los Angeles County Department of Public Works' Hydrology Manual requires that a storm drain conveyance system be designed for a 25-year storm event and that the combined capacity of a storm drain and street flow system accommodate flow from a 50-year storm event. Areas with sump conditions are required to have a storm drain conveyance system capable of conveying flow from a 50-year storm event.[8] The County also limits the allowable discharge into existing storm drain facilities based on the MS4 Permit, which is enforced on all new developments that discharge directly into the County's storm drain system. Any proposed drainage improvements of County owned storm drain facilities such as catch basins and storm drain lines require the approval/review from the County Flood Control District department.

(2) Los Angeles Municipal Code

Any proposed drainage improvements within the street right of way or any other property owned by, to be owned by, or under the control of the City require the approval of a B-permit (Section 62.105, LAMC). Under the B-permit process, storm drain installation plans are subject to review and approval by the City of Los Angeles Department of Public Works Bureau of Engineering.[9] Additionally, any connections to the City's storm drain system from a property line to a catch basin or a storm drain pipe requires a storm drain permit from the City of Los Angeles Department of Public Works, Bureau of Engineering.

(3) City of Los Angeles Stormwater Program

Within the City, the National Pollutant Discharge Elimination System (NPDES) requirements mandate that stormwater Best Management Practices (BMPs) be implemented during Project construction into Storm Water Pollution Prevention Plans

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8. *Los Angeles County Department of Public Works Hydrology Manual, January 2006, http://ladpw.org/wrd/Publication/engineering/2006_Hydrology_Manual/2006%20Hydrology%20ManualDivided.pdf, accessed March 19, 2009.*

9 *Los Angeles County Department of Public Works, Bureau of Engineering, http://eng.lacity.org/index.cfm; accessed March 19, 2009.*

(SWPPPs) and during Project operation into Standard Urban Stormwater Management Plans (SUSMPs). The requirements are enforced through the City's plan review and approval process. During the review process, projects plans are reviewed for compliance with the City's General Plans, zoning ordinances, and other applicable local ordinances and codes, including stormwater requirements. Plans and specifications are reviewed to ensure that the appropriate BMPs are incorporated to address stormwater pollution prevention goals.

The purposes of the SWPPP are to identify potential pollutant sources that may affect the quality of discharge associated with construction activity, identify non-stormwater discharges, and design the use and placement of BMPs to effectively prohibit the entry of pollutants from the project site into the public storm drain system during construction.

The purpose of SUSMP is to reduce the discharge of pollutants in stormwater by outlining BMPs which must be incorporated into the design plans of new development and redevelopment. The SUSMP provisions that are applicable to new residential and commercial developments include, but are not limited to, the following:[10]

- *Peak Stormwater Runoff Discharge Rate:* Post-development peak stormwater runoff discharge rates shall not exceed the estimated pre-development rate for developments where the increased peak stormwater discharge rate will result in increased potential for downstream erosion.

3. Impacts of the USC Development Plan on Public Infrastructure

a. Proposed Infrastructure Improvements

The City of Los Angeles Capital Improvement Program report 2008/2009 through 2012/2013 does not indicate any proposed improvements to the storm drainage infrastructure within the Nexus Study Area.

b. Proposed Increase in Storm Drain Flows

It is anticipated that the USC Development Plan will result in a 2 percent increase to the impervious ratio within the Development Plan area. This change to the runoff

[10] *City of Los Angeles Stormwater Program website, http://www.lastormwater.org/siteorg/businesses/susmp/industrial.htm; http://www.lastormwater.org/siteorg/businesses/susmp/housing.htm; accessed August 2, 2009.*

coefficient for the 35th Street Watershed area was prorated out based on area because the majority of the USC Development Plan area is part of this watershed. The runoff coefficient (C) in the post developed 35th Street Storm Drain Watershed due to USC Development Plan increased from 0.86 to 0.8614 and was calculated as follows:

$$C_{t\text{-}35} = \frac{C_1*A_1 + C_2*A_2}{A_t} = \frac{0.88*166 + 0.86*2{,}272}{2{,}438} = 0.8614$$

$C_{t\text{-}35}$ = run-off coefficient for 35th Street Watershed

C_1 = percent of impervious area within USC Development Plan

C_2 = percent of impervious area outside USC Development Plan

A_1 = area within USC Development Plan

A_2 = area outside USC Development Plan

A_t = total area within Nexus Study affected by USC Development Plan

Table G-21 summarizes the anticipated proposed peak runoff and volume values for the 50-year storm event in the 35th Street Storm Drain Watershed.

Table G-22 on page G-50 summarizes the anticipated proposed peak runoff and volume values for the 50-year storm event in the McClintock Avenue Storm Drain Watershed.

Table G-21
35th Street Storm Drain Watershed Proposed Peak Runoff for the 50-Year Storm Event

Basin	Area (acres)	Impervious Ratio	Soil Type	Length (ft)	Slope (ft/ft)
1	2,438	0.8614	6	15,700	0.0027
Isohyet (in.)	**Tc-calculated (min.)**	**Intensity (in./hr)**	**Cu**	**Cd**	**Flowrate (cfs)**
5.5	30	1.41	0.66	0.87	2,990.69

Table G-22
McClintock Avenue Storm Drain Watershed Proposed Peak Runoff for the 50-Year Storm Event

Basin	Area (acres)	Impervious Ratio	Soil Type	Length (ft)	Slope (ft/ft)
1	132	0.86	6	4585	0.005
Isohyet (in.)	**Tc-calculated (min.)**	**Intensity (in./hr)**	**Cu**	**Cd**	**Flowrate (cfs)**
5.5	30	1.41	0.66	0.67	161.92

The net flow rate and volume increase from pre to post development of the USC Development Plan watersheds within the Study Area are negligible due to the minimal increase to impervious ratio caused by the USC Development Plan prorated over the larger Study Area.

c. Impacts to Existing Storm Drain Infrastructure Due to Increased Flows

There is no increase in peak run-off for the 35th Street and McClintock watersheds for the 50-year storm event as shown in Tables 7 to 8 due to the USC Development Plan, therefore there are no limitations on the existing infrastructure.

d. Proposed Improvements to Storm Drain Infrastructure Due to Increased Flows

The USC Development Plan proposes to implement project specific Best Management Practices (BMP's) for each new development to reduce the peak discharge rate (detention) and thus will not increase the likelihood for flooding during the 50-year developed storm event within the Study Area.

The USC Development Plan also proposes to reduce the amount of stormwater that enters the existing storm drain systems by introducing runoff into the ground (infiltration), resulting in no net increase in stormwater runoff that enters Ballona Creek.

The USC Development Plan will not create adverse changes to the movement of surface water or change the direction of flow within the Study Area. Most of the drainage patterns have already been established with the constructed storm drain systems that convey all the stormwater to the southwest. Each new development will direct flows similar

to how they are directed now and will drain to the pipes that currently serve the Study Area. Therefore, the USC Development Plan will not require improvements to the public storm drain infrastructure within the Study Area.

e. Characteristics that Distinguishes the Impact Analysis and Conclusions between the Nexus Study and the USC Development Plan

This evaluation of the Nexus Study Area extends beyond the requirements of CEQA. The Nexus Study and the Draft EIR used a similar analysis in looking at the impacts to the existing storm drainage infrastructure within each study area. Both analyses calculated the increase of impervious surfaces and the effect on storm water runoff flow rates. The results of the Nexus Study showed a zero increase in storm water flow rates due to the large study area and the minimal increase of impervious surface. The Draft EIR showed a slight increase in storm water flow rates due to the increase in impervious surfaces. However, the impacts within the Nexus Study are no different than those indicated in the Draft EIR. Specifically, the Project will result in no-net increases to storm water runoff leaving the Project site due to the implementation of project specific Best Management Practices (BMPs) for each new development. Therefore there are no significant impacts to the existing storm drainage infrastructure within the Nexus Study Area.

Section H. Public Facilities and Services

1. Fire Protection

1. Introduction

This section of the Nexus Study sets forth information regarding fire protection and emergency medical services in the Draft EIR for the USC Development Plan, as well as information provided by the Los Angeles Fire Department for the Nexus Study Area. The scope of this fire protection section of the Nexus Study exceeds the required scope under the California Environmental Quality Act (CEQA). This section includes an assessment of existing fire protection conditions in the Nexus Study Area, a description of regulations and plans regarding fire protection, the analysis of impacts on fire protection services associated with the USC Development Plan as presented in the Draft EIR, and a comparison of impacts identified within the Draft EIR with potential impacts in the Nexus Study Area. As demonstrated by the analysis below, fire protection impacts within the Nexus Study Area are the same as those identified in the Draft EIR. This section of the Nexus Study does not contain any new analyses or mitigation measures for the Project that are required by CEQA.

2. Environmental Setting

a. Existing Conditions

(1) Los Angeles Fire Department

The Los Angeles Fire Department (LAFD) serves as the City of Los Angeles' (City) full-spectrum life safety agency, providing fire prevention, firefighting, emergency medical care, technical rescue, hazardous materials mitigation, disaster response, public education, and community services to more than 4 million residents. The LAFD's 3,586 uniformed personnel are supported by 353 professional support personnel, who provide technical and administrative expertise. The LAFD's 471-square-mile jurisdiction includes 106 neighborhood fire stations. At any given time, a total of 1,104 firefighters, including 242

paramedics, are on duty Citywide. During 2008, the LAFD responded to 753,428 incidents.[1]

As shown in Figure H-1 on page H-3, two LAFD fire stations are located within the Nexus Study Area. Fire Station No. 15 is located at 915 West Jefferson Boulevard within Subarea 3 of the Project site and Fire Station No. 46 is located at 4370 South Hoover Street. Portions of the service areas of three additional LAFD fire stations are also located within the Nexus Study Area, although the fire stations themselves are not located within the Nexus Study Area. These stations are Fire Station No. 26, located at 2009 South Western Avenue, Fire Station No. 13 located at 2401 West Pico Boulevard, and Fire Station No. 10 located at 1335 South Olive Street.[2] As these fire stations serve a small portion of the Nexus Study Area and are not the first responder to the Project site, the following analysis will focus on Fire Station Nos. 15 and 46. The location, staffing, and equipment of each of these two fire stations are summarized in Table H-1 on page H-4.

The Project site is located within the service area of Fire Station No. 15, which is designated as the first responder or the "first-in" station to the Project site in the event of emergencies.[3] The area served by Fire Station No. 15 is generally bounded by the Santa Monica Freeway to the north, San Pedro Street to the east, Martin Luther King, Jr. Boulevard to the south, and Western Avenue to the west. To provide for development of the proposed Project, Fire Station No. 15 that is currently located in Subarea 3 would be relocated. Five potential sites have been identified for relocation of the fire station.[4] Relocation of this fire station would be contingent on identification of a mutually agreed upon site by the University and LAFD. Relocation is not anticipated to affect the fire station's service area or response times. In 2008, Fire Station No. 15 had a service

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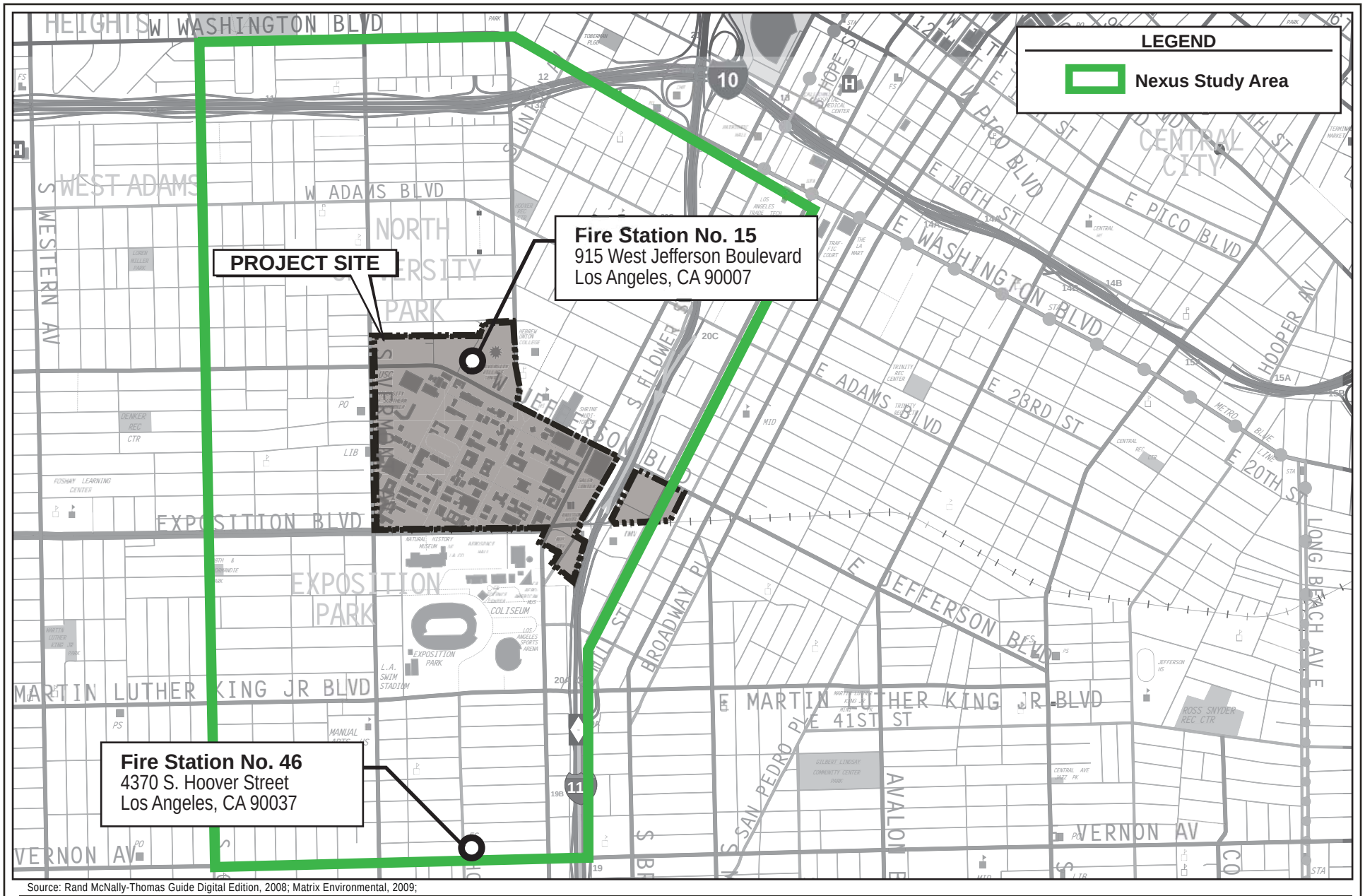
[1] *Los Angeles Fire Department, About the LAFD, accessed online at: http://lafd.org/about.htm, accessed July 22, 2009.*

[2] *City of Los Angeles, Bureau of Engineering, Navigate LA, accessed online at: http://navigatela.lacity.org/index.cfm, accessed August 17, 2009.*

[3] *"First-in" districts are determined by the response time and distance between a site and nearby LAFD fire stations, as well as by the land uses contained within the potential "first-in" districts. Land use characteristics are considered since demand for services and response times can vary depending on population density, traffic, building types, and uses.*

[4] *Four sites are located on the west side of Vermont Ave.; between Jefferson and Exposition Boulevards. The fifth site is located on the Campus at the northwest corner of Jefferson Boulevard and Vermont Avenue.*



Source: Rand McNally-Thomas Guide Digital Edition, 2008; Matrix Environmental, 2009;

Figure H-1
LAFD Fire Stations
Located Within the Study Area

Table H-1
Fire Stations Located Within the Nexus Study Area

Station No./Location	Approximate Response Time to Project Site	24-Hour Staffing	Equipment
Fire Station No. 15 915 W. Jefferson Blvd.	2.6 minutes	14	- Truck and Engine Company - Fire Engine - Paramedic Rescue Ambulance - Battalion Command Team
Fire Station No. 46 4370 S. Hoover St.	4.8 minutes	9	- Fire Engine - Paramedic Rescue Ambulances - Basic Life Support Ambulance

Source: Written communication to Matrix Environmental from William N. Wells, Captain II-Paramedic of the Los Angeles Fire Department Planning Section, March 9, 2009.

population of approximately 58,060 residents.[5] Additionally, in 2008, this station had an average response time of approximately 2.6 minutes to emergency incidents occurring within the Project site.[6,7]

During emergency incidents, Fire Station No. 15 is supported by the two "second-call" stations, Fire Station Nos. 46 and 14. Fire Station Nos. 46 and 14 have response times to the Project site of approximately 4.8 and 5.6 minutes, respectively.[8]

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[5] *The service area of Fire Station No. 15 does not correspond with the South Los Angeles or Southeast Los Angeles Community Plan Areas or the census tracts that it contains. The census tracts contained within the service boundaries of Fire Station No. 15 were identified using NavigateLA (accessed online at: http://navigatela.lacity.org/index01.htm). Estimated 2008 populations for the census tracts within the service boundaries of Fire Station No. 15 are from the Southern California Association of Governments (SCAG) 2008 Regional Transportation Plan growth forecasts (accessed online at: http://www.scag.ca.gov/forecast/index.htm). Populations from the following census tracts were included in the service population estimates for Fire Station No. 15: 221710, 221810, 221820, 221900, 222100, 222500, 222600, 222700, 224410, 224420, 224600, 224700, 231100, 231210, and 231220. The population calculation for each census tract was conducted by assuming linear annual population growth between 2005 and 2010 (i.e., the difference between the 2005 and 2010 SCAG population estimates for each census tract was divided by five and the resulting value was then multiplied by three and added back into the respective 2005 SCAG projected population for each census tract). Populations of census tracts with less than 25 percent of their land areas within Fire Station No. 15 boundaries were not included in the calculations (i.e., census tracts 221600, 222200, and 228410).*

[6] *Written communication to Matrix Environmental from William N. Wells, Captain II-Paramedic of the Los Angeles Fire Department Planning Section, March 9, 2009.*

[7] *Response time is measured from the time a call is received to the time it takes to respond to the particular incident within the Project site.*

[8] *Op. cit.*

LAFD responses are classified as either emergency medical service (EMS) or fire responses. EMS responses are further classified into either Basic Life Support (BLS) or Advanced Life Support (ALS). BLS responses include the deployment of a truck, an ambulance, and services of an emergency response technician, but do not require the use of paramedics. ALS responses include the deployment of a truck, an ambulance, and a qualified (rated) paramedic. The paramedic rating is based on advanced technical training and hours of experience. Fire responses refer to fire calls including building fires, smoke, and traffic accidents not requiring emergency medical service, and trash and vehicles fires, as well as responses to fire alarms, elevator rescues, and similar emergencies. Table H-2 on page H-6 presents the 2008 annual average number of responses and average response times for the two LAFD stations located within the Nexus Study Area. As shown therein, Fire Station No. 15 had 10,076 total responses in 2008, consisting of 6,256 ALS EMS responses, 1,784 BLS EMS responses, and 2,036 fire-related responses. Fire Station No. 46 had 16,996 total responses for the same year, consisting of 10,260 ALS EMS responses, 4,632 BLS EMS responses, and 2,104 fire-related responses. Fire Station Nos. 15 and 46 had a total of 27,072 responses in 2008. BLS and ALS medical responses constituted approximately 24 and 61 percent of these responses, respectively, while fire responses constituted the remaining 15 percent.[9]

(2) Emergency Access and Response Distance

Emergency access to the Project site and vicinity is provided along major transportation corridors, including Figueroa Street, Jefferson Boulevard, Vermont Avenue, Hoover Street, Exposition Boulevard, Hope Street, and Grand Street. Additionally, Figueroa Street to the east and Martin Luther King, Jr. Boulevard to the south are designated disaster routes within the Safety Element of the City of Los Angeles' General Plan Framework.[10]

LAFD response times are the product of both the physical distances separating LAFD stations from the Project site and the time taken to traverse these distances (i.e., travel time). As further discussed below, the City of Los Angeles Fire Code (Fire Code) limits the maximum response distance from a high density residential and commercial neighborhood to a fire station with an engine or truck company to 1.5 miles. In addition, the maximum response distance from a commercial development to a fire station with an engine company is limited to one mile and the maximum response distance from a

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[9] *Ibid.*

[10] *City of Los Angeles Department of City Planning, Safety Element of the General Plan, Exhibit H, November 1996.*

Table H-2
2008 Response Data for LAFD Stations Within the Nexus Study Area

Fire Station	No. of Annual Reponses		Average Response Time for Service Area [a]
Fire Station No. 15			
Advanced Life Support Emergency Medical Service Responses	6,256	(62%)	5.4 minutes [b]
Basic Life Support Emergency Medical Service Responses	1,784	(18%)	
Fire Responses	2,036	(20%)	4.9 minutes
Total Station Responses	*10,076*		
Fire Station No. 46			
Advanced Life Support Emergency Medical Service Responses	10,260	(60%)	5.8 minutes [b]
Basic Life Support Emergency Medical Service Responses	4,632	(27%)	
Fire Responses	2,104	(13%)	5.2 minutes
Total Station Responses	*16,996*		
GRAND TOTAL	**27,072**		
Advanced Life Support Emergency Medical Service Responses	16,516	(61%)	
Basic Life Support Emergency Medical Service Responses	6,416	(24%)	
Fire Responses	4,140	(15%)	

[a] *Average response times reflect the average response times for all 2008 responses occurring in the fire station's service area. These times are different from the average response times to the Project site itself (see Table H-1 for average response times to the Project site).*

[b] *Response times for emergency medical service responses (EMS) reflect ALS responses. Per communication with the LAFD, the LAFD does not benchmark or publish BLS response times as they are misleading since they include non-emergency responses without red lights and siren.*

Source: Written communication to Matrix Environmental from William N. Wells, Captain II-Paramedic of the Los Angeles Fire Department Planning Section, March 9, 2009.

commercial development to a fire station with a truck company is 1.5 miles. For high density commercial/high density industrial uses (including principal business districts), the maximum response distance to a fire station with an engine company is 0.75 mile and the maximum response distance to a fire station with a truck company is one mile. Where a response distance is greater than that which is allowable, all structures must be constructed with automatic fire sprinkler systems. Fire Station No. 15 is located within Subarea 3 of the Project site and is equipped with both a truck and engine company. Therefore, the Project site is located within the Fire Code's maximum response distance of 1.5 miles from a fire station with an engine or truck company.

(3) USC Office of Fire Safety and Emergency Planning

USC's Office of Fire Safety and Emergency Planning (FSEP) is the University's liaison for issues involving the LAFD. The FSEP maintains an Emergency Operation Center, conducts building evacuation drills, and ensures the safety of the University community during all major campus events. The Emergency Planning Office of the FSEP has the role of coordinating preparation and training for central emergency service departments, and maintaining the University's Emergency Operations Plans (EOPs). The EOP for the University Park Campus (the Campus) provides standard procedures for responding to major emergencies (including fire-related emergencies). The general objectives of the EOP are to ensure the safety and well-being of the University community, protect University property and assets, and minimize disruption of academic programs.

In the event of a major emergency, the Emergency Policy Group, consisting of the University president, the provost, senior vice presidents and other University officers, provides the overall direction for policy and communications. The Emergency Operations Group, which includes the offices of career and protective services, facilities management, student affairs, auxiliary services, public relations, information technology services and others, has also been established. The Emergency Operations Group is prepared to immediately secure the safety of USC students, faculty staff and visitors; to determine the nature and extent of damage; to coordinate with deans and vice presidents; and to implement the communications plan with university stakeholders.[11]

The FSEP also provides Safety Fact Sheets pertaining to fire safety addressing such topics as cooking and kitchen safety, generator safety, electrical safety, and open flames in bio-safety cabinets. The FSEP also offers a number of services and programs aimed at preventing the occurrence of emergency incidents and minimizing the impacts of emergency events that do occur. Services provided by the FSEP include Fire Safety & Fire Extinguisher Training, Building Emergency Preparedness Training, and Event Planning consultation, as well as assistance for departments in preparing and effectively implementing customized internal emergency plans.[12] Programs offered by the FSEP include the Hot Work Program, which aims to prevent injury and loss of property during welding, cutting, brazing, and grinding operations.[13] USC also maintains special

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[11] *USC Office of Fire Safety and Emergency Planning, accessed online at: http://emergencyprep.usc.edu/emergency/campus-emergency-prep/ , accessed March 1, 2010.*

[12] *Ibid.*

[13] *Ibid.*

fire/emergency services in-house, for use during very large Campus events such as Commencement and during major disasters such as a regional earthquake:

1. The University has established an Industrial Fire Brigade, trained to respond to a campus fire utilizing a “mini-pumper” fire engine. The mini-fire engine can draw water either from a hydrant or the campus swimming pool if hydrants are unavailable. This unit is led by University staff members who are former fire fighters, and assisted by trained volunteers. The team will respond to small fires day-to-day, and protect the Campus from fire during disasters, when the LAFD will be overwhelmed and unable to respond.

2. The University has also established a Community Emergency Response Team (CERT) and numerous building floor warden teams trained in the use of fire hoses and extinguishers.

3. During the several dozen large-scale Campus events each year with thousands of attendees, the University provides in-house emergency medical services of trained EMT’s equipped to provide first aid and CPR. This is helpful since there is often limited availability of LAFD responders, who often have difficulty locating 911 incidents on the Campus. University teams provide an immediate response that helps reduce service pressure on LAFD personnel.

4. The University also hires off-duty LAFD personnel to serve as Fire Safety Officers during large special events.

Additionally, the University has acquired a mini fire truck similar to those maintained by many private companies and large universities. The Ford F550 fire truck is equipped with a fire pump, 300 gallon water tank, fire hoses, and the ability to pump water from a swimming pool if fire hydrants are unavailable. The main purpose of the fire truck is for use in a major disaster when there may be multiple fire ignitions at the same time LAFD resources are overwhelmed. The fire truck may be used day to day to extinguish minor fires and to respond to other types of Campus emergencies.

Furthermore, over the last 10 years, the University has implemented a voluntary fire protection upgrade for all University-owned residence halls and apartment buildings. As of Summer 2009, all of the University-owned residence halls and apartments are equipped

with fire sprinkler protection. As a result, University residential buildings have not experienced a major fire since 1999.[14]

Additionally, the FSEP continuously maintain lanes of emergency access to all buildings and polices the lanes to ensure they are not blocked. On those occasions, when blocking a fire lane is unavoidable due to a construction project, the Office of Fire Safety & Emergency Planning provides maps of alternate routes to the LAFD.

In summary, the FSEP protects USC's community and interests by ensuring that the University is protected from major hazards and is prepared for potential emergencies. As such, the FSEP supports the LAFD by minimizing fire risks and associated demand for LAFD services at the Project site.

b. Regulatory Framework

(1) State of California

The current California Building Code (CBC) is a compilation of building standards, which include fire safety standards. The CBC is a component of California Code of Regulations (CCR), Title 24, also referred to as the California Building Standards Code. The building standards outlined within CBC apply to all occupancies in California, except where more stringent standards have been adopted by state agencies and local governing bodies.

Contained in the CBC within CCR, Title 24 is the California Fire Code (CFC) [CCR, Title 24, Part 9]. Fire safety requirements outlined in the CFC include the installation of fire sprinklers in all high-rise buildings, the clearance of debris and vegetation within a prescribed distance from occupied structures in wildfire hazard areas, and the establishment of fire resistance standards for fire doors, building materials, and particular types of construction. Specific CBC fire safety regulations have been incorporated by reference in the Los Angeles Municipal Code (LAMC). For example, Chapter 7 of the CBC, which addresses the use of fire-resistant building materials, fire suppression systems, and other fire safety elements related to the design and construction of high-rise buildings, is incorporated by reference in Chapter 9, Section 91.700 of the LAMC.

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[14] *William Regensburger, Ph.D., Director, Fire Safety & Emergency Planning University of Southern California.*

(2) City of Los Angeles

(a) Los Angeles General Plan Framework

The City of Los Angeles General Plan Framework Element (Framework), adopted in December 1996 and readopted in August 2001, provides a comprehensive, long-range strategy for accommodating long-term growth in the City of Los Angeles (City). The Infrastructure and Public Services Chapter of the Framework sets forth goals, objectives, and policies for fire protection and EMS in the City. The objectives and policies established to support Goal 9J of the Infrastructure and Public Services Chapter ensure that every neighborhood has the necessary level of fire protection service, EMS, and infrastructure. Under the Framework, the City standard for response distance from the fire station to the destination location is 1.5 miles.[15] This is consistent with the recommended response distances within the LAMC.

(b) General Plan Safety Element

The General Plan Safety Element (Safety Element), adopted on November 26, 1996, contains policies related to the City's response to hazards and natural disasters, including fires. The fire response policies of the Safety Element set forth requirements, procedures, and standards to facilitate effective fire suppression and emergency response capabilities. For example, Policy 2.1.6 requires the LAFD to revise regulations and procedures to include the establishment of minimum standards for the location and expansion of fire facilities based on fire flow, intensity and type of land use, life hazard, occupancy, and degree of hazard.

(c) Los Angeles Municipal Code

The Los Angeles Municipal Code (LAMC) outlines provisions for new construction projects within the City. It contains, by reference, the CBC building construction standards, including the CFC, as well as reflects the policies of the General Plan Safety Element. Under Article 7 (Fire Code) of its Fire Protection and Prevention Chapter, the LAMC sets forth regulatory requirements pertaining to the prevention of fires, the investigation of fires and life safety hazards, the elimination of fire and life safety hazards in any building or

[15] *City of Los Angeles General Plan Framework, page 9-5.*

structure (including buildings under construction), the maintenance of fire protection equipment and systems, and the storage, use, and handling of hazardous materials.[16]

Chapter 5, Article 7, Division 9 of the Fire Code addresses access, fire flow requirements, and hydrants. Section 57.09.03 of Division 9 requires the provision of an approved, posted fire lane whenever any portion of an exterior wall is more than 150 feet from the edge of a roadway, while Section 57.09.06 establishes fire flow standards. Fire flow requirements, as determined by the LAFD, vary by project sites as they are dependent on land use (e.g., higher intensity land uses require higher flow from a greater number of hydrants), life hazard, occupancy, and fire hazard level. Typically, the fire flow required for a high density residential use is 4,000 gpm from four adjacent hydrants flowing simultaneously. Fire flow required for a commercial or industrial use is typically between 6,000 to 9,000 gpm flowing from four to six adjacent hydrants simultaneously. In contrast, the fire flow required for a high density commercial or industrial use is 12,000 gpm available to any block. A minimum residual water pressure of 20 pounds per square inch (psi) is required to remain in the water system on top of required gpm flow.

In addition to fire flow, Article 7 also outlines land use-based requirements for fire hydrant spacing and type. High-density residential uses require one hydrant per 100,000 square feet of land with 300- to 450-foot distances between hydrants and 2 ½-inch by 4-inch double fire hydrants. In contrast, commercial uses require one hydrant per 80,000 square feet of land with 300-foot distances between hydrants and either 2 ½-inch by 4-inch or 4-inch by 4-inch double fire hydrants. Regardless of land use, every first story of a residential, commercial and industrial building must be within 300 feet of an approved hydrant.

Chapter 5, Article 7, Division 9 (Section 57.09.07) of the Fire Code limits the maximum response distance from a high density residential and commercial neighborhood to a fire station with an engine or truck company to 1.5 miles. The maximum response distance from a commercial development to a fire station with an engine company is one mile and the maximum response distance from a commercial development to a fire station with a truck company is 1.5 miles. For high density commercial and high density industrial uses (including principal business districts), the maximum response distance to a fire station with an engine company is 0.75 mile and to a fire station with a truck company is one mile. Where a response distance is greater than that which is allowable, all structures must be constructed with automatic fire sprinkler systems. As discussed above, Fire Station No. 15

[16] *City of Los Angeles Municipal Code, Article 7, Chapter V, Section 57.01.02., Amended in Entirety, Ordinance Number 162,123, effective May 12, 1987.*

is located within Subarea 3 of the Project site. This fire station is equipped with both a truck and engine company. Therefore, all Subareas of the Project site are within the Fire Code's maximum response distance of 1.5 miles from a fire station with an engine or truck company.

Division 9, Section 91.905.15.11 requires that all smoke-control systems be tested prior to issuance of the Certificate of Occupancy. Division 112, Section 57.112.07 of the Fire Code then requires that all smoke control systems be retested every six months or in accordance with the retest requirements established by the Department of Building and Safety and the LAFD.

Division 118 of the Fire Code classifies buildings where the highest floor level is more than 75 feet above the lowest point of fire access as high-rises. Buildings classified as high-rises are subject to specific requirements for fire safety. Division 118 requires that each high-rise building include a Fire Control Station containing a public address system and telephones for LAFD use, a fire detection and fire alarm system, an elevator recall switch and a status panel for all elevator cars, a sprinkler control system, standby power and emergency electrical power controls, controls for unlocking stair shaft doors, smoke evacuation and fan controls, stairway pressurization control switches, and status indicators for fire pumps and water supply. Division 118 also requires the installation of automatic sprinkler systems in all new high-rise buildings as well as development of a rooftop emergency helicopter landing facility for each building in a location approved by the Fire Department Chief. In addition, Division 118 requires a sound-powered telephone communication system to be located at every floor in each enclosed exit stairway, at every exterior location where an enclosed stairway exits to a public way, on the roof, and in every elevator car. Further, Division 118 requires high-rise buildings to have at least one emergency and fire control elevator in each bank of elevators, dependable methods of sounding a fire alarm throughout high-rise buildings, emergency smoke control systems, a standby and emergency power system, stair shaft doors for fire department use, and pressurized stair shafts.

Under Chapter 9, Section 91.905.15 of the Fire Code, all smoke-control systems within high-rise buildings must be tested prior to the issuance of a Certificate of Occupancy. Following occupancy, all operating parts of smoke-control systems and all automatic fire extinguishing systems must be retested every six months. In addition, Division 119 requires yearly inspections to evaluate physical access, property condition, and all fire-safety facilities and equipment of high-rise buildings must be undertaken, as outlined by the LAMC. The LAFD Fire Prevention Bureau also administers guidelines for the sequence of operations for life safety systems in high-rise buildings. These guidelines address the management of life-safety systems and facilities, including a sequence of procedures involving monitoring and management of audible and visual alarm signals; elevator lobby smoke detectors; duct smoke detectors; elevator shaft smoke/heat detectors; sprinkler

valve flow switches; and smoke/fire dampers on each floor. The Fire Code also requires stairway numbering on each floor, roof access, and fire safety signage on all floors in prescribed locations.

(d) City of Los Angeles Propositions

The City of Los Angeles Fire Facilities Bond (Proposition F), approved by voters in November 2000, allocates $378.6 million to build 19 new or replacement neighborhood fire/paramedic stations.[17] None of the three fire stations serving the Project site are included on the list of Proposition F projects.

Measure J, which was approved by voters at the November 7, 2006, County State General Election, is a charter amendment and ordinance that involves technical changes to Proposition F. Currently under Proposition F, the construction of new regional fire stations to provide training and other facilities at or near standard fire stations must take place on single sites of at least two acres. Measure J allows new regional fire stations funded by Proposition F and located in densely developed areas to be designed and built on one or more properties equaling less than two acres.

Proposition Q, the Citywide Public Safety Bond Measure, was approved by voters in March 2002. This proposition involves the spending of $600 million to renovate, improve, expand and construct police, fire, 911, and paramedic facilities. Proposition Q also involves a total of 11 Phase I and five Phase II projects.[18] None of the projects funded under Proposition Q are located within the Project vicinity.

(3) South Los Angeles and Southeast Los Angeles Community Plans

The Project site is located in the South Los Angeles and Southeast Los Angeles Community Plan areas.[19] The Community Plans for these areas both contain the fire protection services goal to "provide community protection through a comprehensive fire and life safety program". Further, Objective 10-1 within the South Los Angeles Community

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[17] *City of Los Angeles Department of Water and Power, Proposition F, Facilities Bond, accessed online at: http://eng.lacity.org/projects/fire_bond/index.htm, accessed February 10, 2010.*

[18] *City of Los Angeles Public Safety Bond Program, online at: http://www.lapropq.org/index.cfm, accessed March 10, 2010.*

[19] *Both the South Los Angeles and Southeast Los Angeles Community Plans are currently being updated by the City.*

Plan and Objective 9-1 of the Southeast Los Angeles Community Plan "ensure that fire facilities and protective services are sufficient for the existing and future population and land uses".

3. Environmental Impacts

a. Significance Thresholds

The *City of Los Angeles CEQA Thresholds Guide (2006)* states that a project would normally have a significant impact on fire protection if it would require the addition of a new fire station or the expansion, consolidation, or relocation of an existing station to maintain service.

In addition, according to the *City of Los Angeles CEQA Thresholds Guide* (2006), the determination of significance for impacts associated with emergency preparedness shall be made on a case-by-case basis, considering the following factor:

- The degree to which the project may require a new, or interfere with an existing, emergency response or evacuation plan, and the severity of the consequences.

b. Project Design Features

With regard to operation, new buildings developed in the Project site would incorporate building design features that would comply with applicable LAMC fire safety requirements, including LAMC Chapter 7 (Fire Code) and Chapter 9 (Building Code). Fire safety design features would include and are not limited to the following: fire-resistant building materials, emergency and fire control elevator in each bank of elevators, a fire alarm system throughout the buildings, a standby emergency power system, smoke detection systems in all buildings, emergency exit signage on all floors of new buildings, a separate Fire Control Station in high-rise buildings, automatic sprinkler systems, and portable fire extinguishers in all the buildings. Further, new development in the Project site would be required to submit a plot plan to LAFD for approval prior to the recordation of the final map or the approval of a building permit. The plot plan would include the following minimum design features:

- Fire lanes, where required, would be a minimum of 20 feet in width clear to sky, posted with a sign of no less than three square feet in area and/or painted with "Fire Lane No Parking", and have an adequate approved turning area. When a fire lane must accommodate the operation of Fire Department aerial ladder

apparatus or where fire hydrants are installed, those portions would not be less than 28 feet in width;

- No building or portion of a building would be constructed more than 150 feet from the edge of a roadway, of an improved street, access road, or designated fire lane, unless otherwise approved;
- Access for LAFD apparatus and personnel to and into all structures would be provided;
- Locations and sizes of all fire hydrants; and
- All structures would be within 300 feet of an approved fire hydrant.

USC would also be responsible for providing the necessary water infrastructure (e.g., new water connections) to serve the fire water demands of the Project, as well as any extensions to connect the Project site to existing water lines in the area. Existing water connections would be utilized where appropriate.

Additionally, USC's FSEP would continue to implement the various fire safety and prevention programs that currently occur on the Campus. These FSEP programs would provide for the protection of USC's community and interests by ensuring that the University is protected from major hazards and is prepared for potential emergencies.

c. Project Impacts Set Forth in the Draft EIR

(1) Capability of Existing Fire Protection Services

Development of the proposed Project would increase the residential service population of Fire Station No. 15. As discussed in IV.I.2, Housing of the Draft EIR, all USC faculty members and the majority of graduate students currently reside outside of the Local Area, while the majority of undergraduate students reside in close proximity to the Campus. With the proposed Project's development of approximately 250 new faculty units and approximately 3,240 graduate students beds, the proposed Project would bring faculty and graduate students closer to Campus and thus, within the service area of Fire Station No. 15. Thus, the Project's development of faculty units and graduate student beds would increase the residential service population of Fire Station No. 15 and would potentially increase the demand for fire protection services as provided by this station. As provided in

Section IV.I.2, Housing of the Draft EIR, the proposed Project's 250 faculty units could generate a residential population of approximately 418 persons.[20] In addition, conservatively assuming that all of the new graduate beds would be occupied by students that currently reside outside of the service area of Fire Station No. 15, the new graduate beds would generate an additional residential population of approximately 3,240 persons. While it is anticipated that a large portion of the net new 998 undergraduate student beds[21] would be occupied by students already living within the service area of Fire Station No. 15, for purposes of providing a conservative analysis of fire protection, it is assumed that the net new 998 undergraduate student beds would generate a residential population of 998 new persons within the service area. Thus, when accounting for the new faculty units and net new student beds to be provided by the proposed Project, it is conservatively assumed that a new residential population of 4,656 persons within the service area of Fire Station No. 15 would result from implementation of the proposed Project.[22] In addition, as discussed in Section IV.I.3, Population, of the Draft EIR, the proposed Project would also generate indirect growth of approximately 4,432 persons, several of whom may ultimately reside within the Fire Station No. 15 service area.

As previously discussed, Fire Station No. 15 (i.e., the "first-in" station for the Project site) served 58,060 residents during 2008. Thus, the direct increase in residential population of approximately 4,656 persons would represent an approximately 8 percent increase and an associated increase in calls for service to the LAFD. When accounting for indirect population growth of approximately 4,432 persons, and conservatively assuming that all of such indirect growth would be generated within the service area boundaries of Fire Station No. 15 service area, the proposed Project potentially would generate an approximately 15.6 percent increase in population and associated increase in calls to the LAFD as shown in Table H-3 on page H-17.

As described in Section II, Project Description, of the Draft EIR, the proposed Project is intended to serve the existing University population as well as small annual increases in student enrollment, staff, and faculty through the year 2030. Based on historic University growth, it is anticipated that by the year 2030, the University community will be

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[20] *Based on the household size of 1.67 persons/unit for the faculty units.*

[21] *As indicated in Table IV.I-15 in Section IV.I.2, Housing, of the Draft EIR, the proposed Project would remove 1,162 existing undergraduate beds and develop 2,160 new undergraduate beds. Therefore, the net new number of undergraduate beds would be approximately 998.*

[22] *Total potential residential population from the Project = 418 residents from faculty units + 3,240 graduate beds + 998 net new undergraduate beds = 4,656 residents.*

Table H-3
Project Estimated Residential Population Increase within Fire Station No. 15

Project Direct Residential Population Increase	4,656 (418 faculty + 3,240 graduates + 998 net new undergraduates)
Project Indirect Residential Population Increase	4,432 [a]
Total Project Residential Increase	**9,088**
2008 Service Population	**58,060**
Total Project Percentage Increase	**15.6%**

[a] *From Section IV.I.3, Population, of the Draft EIR.*
Source: Matrix Environmental, 2010.

composed of approximately 17,800 undergraduate students, 18,200 graduate students, 1,900 faculty members, and 7,000 staff workers. Additionally, the number of visitors and

contract employees are anticipated to be approximately 2,500. When compared with recent 2009 enrollment and staffing, this represents an increase of approximately 1,777 undergraduate students, 3,395 graduate students, 168 faculty members, and 1,284 staff workers over a 21-year period. Visitors (including contract employees) would also increase by approximately 1,100 from 2009. As such, the increase in University population would increase the daytime service population of Fire Station No. 15 and associated calls for LAFD services. As previously stated, to provide for development of the proposed Project, Fire Station No. 15 that is currently located in Subarea 3 would be relocated. Relocation of this fire station would be contingent on identification of a mutually agreed upon site by the University and LAFD. Relocation is not anticipated to affect the fire station's service area or response times.

As described above, USC FSEP would continue to serve as the University's liaison for issues involving the LAFD and would continue to implement fire safety programs to minimize fire risks and associated demand for LAFD services on-Campus. Specifically, FSEP would continue to maintain an Emergency Operations Center, conduct building evacuation drills, provide services and programs aimed at preventing the occurrence of emergency incidents, and ensure the safety of the University community during all major campus events through Campus-specific Emergency Operations Plans (EOPs). With continued support by the FSEP, the proposed Project's demand on Fire Station No. 15's services, facilities and equipment would be minimized. Additionally, based on LAFD's preliminary review of Project plans and proposed Project Design Features, LAFD concluded that the proposed Project would not have a significant impact on LAFD

services.[23] Therefore, impacts relative to the LAFD's capability to provide adequate fire protection services would be less than significant.

(2) Fire Safety, Access, and Fire Flow Requirements

The proposed Project would comply with all applicable provisions of the Fire and Building Codes as well as LAFD requirements. Specifically, as further discussed below, the Project would comply with all fire safety, access, and fire flow requirements.

(a) Fire Response Distance

Per Section 57.09.07 of the Fire Code, the maximum response distance from a high density residential or a high density commercial neighborhood to a fire station with an engine or truck company is 1.5 miles. As previously discussed, Fire Station No. 15 is currently within Subarea 3 and may be relocated to Parking Lot 1 within the USC core Campus in Subarea 1. In either case, the proposed Project (which is considered a high density residential and commercial development) would be within the maximum response distance of 1.5 mile as specified in the Fire Code. In addition, based on correspondence with the LAFD, the estimated response time to the Project site from Fire Station No. 15 is approximately 2.6 minutes, which is less than the station's average response times for all incident types within the station's service area (i.e., 4.9 minutes for fire incidents and 5.4 minutes for EMS incidents).[24] As such, impacts with regard to fire response distance would be less than significant.

(b) Fire Flow

Per consultation with the LAFD, a minimum fire flow of 4,000 gpm from four hydrants flowing simultaneously would be required for the proposed Project.[25] As analyzed in Section IV.L.1, Water, of the Draft EIR, the existing water infrastructure would be adequate to meet this fire flow requirement. Therefore, the proposed Project would result in a less than significant impact relative to fire flows. Please refer to Section IV.L.1, Water, of the Draft EIR for further discussion of the Project's impacts relative to fire flows.

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[23] *Per 4/23/2010 email communication from Inspector John Dallas and written communication from Captain Luke Milick of the LAFD Hydrants and Access Unit (see Appendix M of the Draft EIR).*

[24] *Written communication to Matrix Environmental from William N. Wells, Captain II-Paramedic of the Los Angeles Fire Department Planning Section, March 9, 2009.*

[25] *Email correspondence with the LAFD Hydrant and Access Unit, John Dallas, June 17, 2009.*

(c) Fire Safety Design and Firefighting Access

As previously discussed in Subsection 3(c) Project Design Features of this section, new development in the Project site would be required to submit a plot plan for approval by the LAFD either prior to the recordation of the final map or the approval of a building permit. The plot plan would be reviewed by the LAFD to ensure compliance with Fire Code requirements and other LAFD requirements.

As the proposed Project would involve the construction of buildings with heights of up to 150 feet, new buildings that have their highest floor level more than 75 feet above the lowest point of fire access would be required to comply with the LAMC's fire safety requirements pertaining to high-rise design and construction. In compliance with Division 118 of the Fire Code, the proposed Project would also provide fire alarms throughout all high-rise buildings, at least one emergency and fire control elevator in each bank of elevators, a standby and emergency power system, stairshaft doors for fire department use, pressurized stairshafts, and other devices operable from the Control Station, as previously listed. In addition, stairways would be numbered on each floor, fire safety signage would be placed on all floors, and fire safety information would be distributed to all building tenants. The proposed Project would also include a Fire Control Station in each high-rise building. All fire safety equipment required by the Fire Code would be provided within the Fire Control Stations, including fire detection and alarm controls, an elevator recall and status panel, an automatic sprinkler system, a public address system, telephones, sprinkler controls, standby power and emergency electrical power systems controls, controls for an air handling system (smoke evacuation), stairway pressurization system control switches, and other systems as required by Division 118 of the Fire Code. The proposed Project would also include automatic sprinkler systems, as well as rooftop emergency helicopter landing facilities on high rise residential and office buildings. In case of fire emergencies, roof access would also be available. Further, the proposed Project would undergo an annual inspection as required by Division 119 of the Fire Code. This inspection would evaluate the proposed Project's physical access, property condition, and fire-safety facilities and equipment. In addition, the proposed Project would meet all standards with regard to fire-resistant building materials and smoke control as outlined in Division 7 of the Building Code.

Regarding emergency access to the Project site, although additional traffic generated by the proposed Project could potentially cause delays in LAFD emergency response times, the additional traffic would not significantly impact emergency vehicle access or response times.

Based on the above, as the proposed Project would comply with applicable Fire Code and LAFD requirements, impacts relative to fire safety design and access would be

less than significant. Nonetheless, mitigation measures are proposed below to ensure compliance with LAFD requirements.

(3) Secondary Impacts due to Housing Backfill

As analyzed in Section IV.I.2, Housing, of the Draft EIR, the proposed Project's development of student and faculty housing as well as future student housing developments may assist in returning existing housing stock that had previously been converted to University housing back to the general non-University community. Specifically, the proposed Project and other new student housing projects approved or underway in the vicinity are anticipated to result in the return of approximately 896 fewer residential units to the community, thus resulting in an indirect backfill population increase of approximately 2,821 persons.[26] The backfill of units that may result from students, faculty, and staff vacating existing residential units within the service area of Fire Station No. 15 may result in additional calls for service. However it should be noted that these existing residential units are already served by the LAFD as well as existing fire water infrastructure. Thus, the additional demand on LAFD service and fire water infrastructure as a result of housing backfill would be incremental, and is not anticipated to require the addition of a new fire station or the expansion, consolidation, or relocation of an existing station to maintain service. Therefore, indirect impacts on LAFD's capability to provide adequate fire protection services would be less than significant.

4. Mitigation Measures Included in Draft EIR

As stated in the Draft EIR, with implementation of the Project Design Features, Project-level impacts on fire protection services would be less than significant. Nonetheless, the following mitigation measures are proposed to ensure Project compliance with Fire and Building Codes as well as LAFD requirements.

Mitigation Measure -1: The Project Applicant shall submit building plans including a plot plan for approval by the Los Angeles Fire Department prior to the recordation of the final map or approval of building permit.

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[26] *Based on the average household size of 3.148 person/unit for renter occupied units in the study area as indicated in Table IV-7 of the USC Development Plan Draft EIR - Employment Housing and Population Impacts Technical Report prepared by HR&A Advisors, Inc. (see Appendix J of the Draft EIR).*

Mitigation Measure -2: The Project Applicant shall consult with the Los Angeles Fire Department and incorporate fire prevention and suppression features appropriate to the design of the proposed Project.

5. Evaluation of Impacts in Nexus Study Area

This evaluation of the Nexus Study Area extends beyond the requirements of CEQA, and the analysis of fire protection and emergency medical services in the Draft EIR is adequate for the Project. The analysis of impacts within the Nexus Study Area is the same as that presented above. The only difference in the analysis is that the Project site is served by three fire stations (i.e., Fire Station Nos. 15, 46, and 14) while the majority of the Nexus Study Area is served by two fire stations (i.e., Fire Station Nos. 15 and 46). As indicated above, with implementation of Project Design Features, the proposed Project would not result in significant impacts to Fire Station Nos. 15 and 46, nor would the proposed Project result in significant impacts associated with response distances, fire flows, fire safety or emergency access. Thus, the analysis and conclusions regarding impacts within the Nexus Study Area are the same as those identified in the Draft EIR, which have been determined to be less than significant.

2. Police Protection

1. Introduction

This section of the Nexus Study sets forth information regarding police services in the Draft EIR for the USC Development Plan, as well as information provided by the Los Angeles Police Department for the Nexus Study Area. The scope of this police protection section of the Nexus Study exceeds the required scope under the California Environmental Quality Act (CEQA). This section includes an assessment of existing police protection conditions in the Nexus Study Area, a description of regulations and plans regarding police protection, the analysis of impacts on police protection services associated with the USC Development Plan as presented in the Draft EIR, and a comparison of impacts identified within the Draft EIR with potential impacts in the Nexus Study Area. As demonstrated by the analysis below, police protection impacts within the Nexus Study Area are the same as those identified in the Draft EIR. This section of the Nexus Study does not contain any new analyses or mitigation measures for the Project that are required by CEQA.

2. Environmental Setting

a. Existing Conditions

(1) Los Angeles Police Department

The LAPD provides police protection services to the City of Los Angeles (the City) through 18 community police areas that are operated by four geographically located bureaus: the Central, South, West, and Valley Bureaus.[27] A majority of the Study Area is located in the service area of the LAPD's South Bureau, which contains 57.6 square miles and a residential population of approximately 640,000 people.[28] Subareas 1 and 3 of the

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[27] *Los Angeles Police Department, LAPD Organization Chart, accessed online at: http://www.lapdonline.org/inside_the_lapd/content_basic_view/1063, accessed November 17, 2009.*

[28] *Los Angeles Police Department, About South Bureau, accessed online at: http://www.lapdonline.org/south_bureau/content_basic_view/1938, accessed August 31, 2009.*

Project site are located in the service area of the LAPD's South Bureau. Portions of the Study Area bounded by the Interstate 110 (I-110) Freeway, Washington Boulevard, and Grand Avenue as well as Washington Boulevard, Hoover Street, and the I-110 Freeway are located within the LAPD's Central Bureau, which contains 65 square miles and a residential population of approximately 900,000 people.[29] Subarea 2 of the Project site is located within the LAPD's Central Bureau. In addition, a portion of the Study Area bounded by Normandie Avenue, Washington Boulevard, and Hoover Street is located within the LAPD's West Bureau, which contains 124 square miles and a residential population of approximately 840,400 people.[30] Table H-4 on page H-24 identifies the police service areas for the Subareas of the Project site.

A majority of the Study Area is served by the Southwest Community Police Station, located at 1546 West Martin Luther King Jr. Boulevard. The service boundary of the Southwest Community Police Station is as follows: the I-10 Freeway (Santa Monica Freeway) to the north, the I-110 Freeway (Harbor Freeway) to the east, Vernon Avenue and the Los Angeles City boundary to the south, and the Los Angeles City boundary to the west.[31] The neighborhoods and communities served by the Southwest Community Police Station include Baldwin Village, Baldwin Vista, the Crenshaw Community, Jefferson Park, Leimert Park, Crenshaw District, the West Adams Community, and University Park.[32] In total, the Southwest Community Police Station serves an area of approximately 12.57 square miles and a residential population of approximately 189,723 people.[33] As shown in Table H-4, Subareas 1 and 3 of the Project site are served by the Southwest Community Police Station.

A portion of the Study Area is also served by the Newton Community Police Station, located at 3400 South Central Avenue. The service boundary of the Newton Community Police Station is as follows: Washington Boulevard and 7th Street to the north, the Los

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[29] *Los Angeles Police Department, About Central Bureau, accessed online at: http://www.lapdonline.org/central_bureau/content_basic_view/1908, accessed August 31, 2009.*

[30] *Los Angeles Police Department, About West Bureau, accessed online at: http://www.lapdonline.org/west_bureau/content_basic_view/1869, accessed August 31, 2009.*

[31] *Captain Steven Zipperman, Southwest Area Commanding Officer, Office of the Chief of Police, LAPD, letter correspondence dated November 16, 2009.*

[32] *Los Angeles Police Department, About Southwest Community Police Station, accessed online at: http://www.lapdonline.org/southwest_community_police_station/content_basic_view/1639, accessed November 17, 2009.*

[33] *Captain Steven Zipperman, Southwest Area Commanding Officer, Office of the Chief of Police, LAPD, letter correspondence dated November 16, 2009.*

Table H-4
Project Site – Los Angeles Police Department Services

Subarea	LAPD Bureau	Police Station	Police Station Address	Distance to Station
Subarea 1, Subarea 3	South Bureau	Southwest Community Police Station	1546 West Martin Luther King Jr. Boulevard	1.0 mile
Subarea 2	Central Bureau	Newton Community Police Station	3400 South Central Avenue	1.0 mile

Source: Matrix Environmental, 2010.

Angeles City boundary to the east, Florence Avenue and the Los Angeles City boundary to the south, and the I-110 Freeway to the west.[34] The neighborhoods and communities served by the Newton Community Police Station include the Produce/North-End Business District, Fashion District, South Park District, and Pueblo Del Rio Housing Development.[35] In total, the Newton Community Police Station serves an area of approximately 9.24 square miles and a residential population of approximately 150,375 people.[36] As shown in Table H-4, Subarea 2 of the Project site is served by the Newton Community Police Station.

That portion of the Study Area bounded by Normandie Avenue to the west, Washington Boulevard to the north, Hoover Street to the east, and the I-10 Freeway to the south is served by the Olympic Community Police Station, which is located at 1130 South Vermont Avenue and serves the Olympic community. In addition, a small portion of the Study Area bounded by Hoover Street, Washington Boulevard, and the I-10 Freeway is served by the Rampart Community Police Station, which is located at 2710 West Temple Street. The Rampart Community Police Station provides service to a compact eight square mile area comprised of the communities of Angelino Heights, Echo Park, Historic Filipinotown, Korea Town, Lafayette Park, Macarthur Park, Pico-Union, Temple-Beaudry, Virgil Village, and Westlake. As the Olympic and Rampart Community Police Stations serve a small portion of the Study Area and are not the primary responder to the Project site, the following analysis will focus on the Southwest and Newton Community Police

[34] *Ibid.*

[35] *Los Angeles Police Department, About Newton, accessed online at: http://www.lapdonline.org/ newton_community_police_station/content_basic_view/1779, accessed November 17, 2009.*

[36] *Captain Steven Zipperman, Southwest Area Commanding Officer, Office of the Chief of Police, LAPD, letter correspondence dated November 16, 2009.*

Stations. Figure H-2 on page H-26 illustrates the service boundaries of and locations of the Southwest and Newton Community Police Stations. In the event that additional staffing is required to supplement these police stations, additional officers can be called in from other LAPD areas.

Table H-5 on page H-27 provides statistics for the Southwest and Newton Community Police Stations, as well as for the City as a whole, with regards to residential population, sworn personnel, crime rates, officers per residents, and average response times for emergency calls. As shown in Table H-5, the Southwest Community Police Station had 329 sworn officers and 25 civilian support staff while the Newton Community Police Station had 290 sworn officers and 20 civilian support staff.[37] Based on the Southwest and Newton Community Police Stations' estimated residential service populations of 189,723 and 150,375, respectively, the ratio of officers to residents was approximately one officer per 577 residents and 519 residents, respectively.[38] In comparison, the Citywide ratio was approximately one officer per 409 residents. The average response time to emergency calls for the Southwest and Newton Community Police Stations was approximately 7 minutes, respectively, which is consistent with the Citywide response time of approximately 7 minutes.[39]

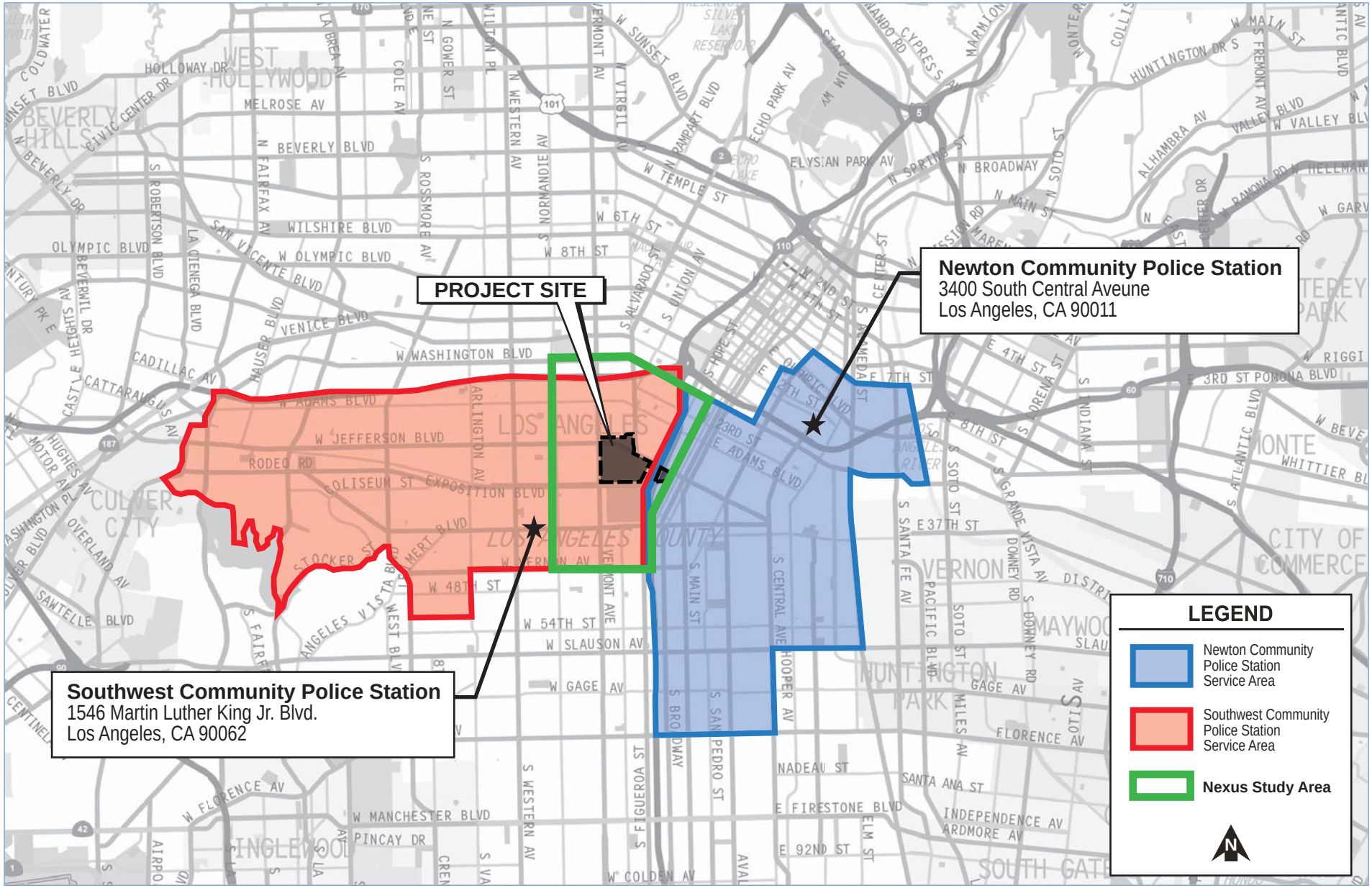
Table H-6 on page H-28 summarizes the 2008 crime statistics for the Southwest and Newton Community Police areas and the City. As shown in Table H-6, there were approximately 74 crimes per 1,000 residents in the Southwest Community Police Station service area, with the most common types of crime being other assault, other theft, and robbery. Within the Newton Community Police station service area, there were also approximately 74 crimes per 1,000 residents, with vehicle theft, other assault, and burglary theft from a vehicle being the most common types of crime. Citywide, there were approximately 52 crimes per 1,000 residents, with the most common types of crime being other assault, burglary theft from a vehicle, and other theft.[40]

[37] *Ibid.*

[38] *Ibid.*

[39] *Ibid.*

[40] *Ibid.*



Source: Rand McNally-Thomas Guide Digital Edition, 2008; Matrix Environmental, 2009;

Figure H-2
Southwest and Newton Community Police Stations Service Area

Table H-5
Population, Officer, Crime, and Response Time Comparison for 2008 [a]

Service Area	Square Miles	Population	Sworn Officers	Officer/ Resident Ratio	Crimes	Average Response Time (minutes)
Southwest Community Police Station	12.57	189,723	329 [b]	1/577	13,972	7
Newton Community Police Station	9.24	150,375	290 [c]	1/519	11,066	7
Citywide	473 [d]	4,000,226	9,770 [d]	1/409	207,503	7

[a] *Statistical information is based on 2008 LAPD Consolidate Criminal analysis Database and management Information Development Allocation System.*
[b] *This does not include the 25 civilian support staff deployed at the Southwest Community Police Station.*
[c] *This does not include the 20 civilian support staff deployed at the Newton Community Police Station.*
[d] *Information from the LAPD 2008 Statistical Digest Information Technology Division Management Report Unit.*

Source: Captain Steven Zipperman, Southwest Area Commanding Officer, Office of the Chief of Police, LAPD, letter correspondence dated November 16, 2009.

(2) USC Department of Public Safety

In addition to the LAPD, the USC Department of Public Safety (DPS) provides policing and security services to the USC University Park Campus (the Campus) and the surrounding community. The DPS is one of the largest university law enforcement agencies in the United States, employing 231 full-time staff, including 82 armed Public Safety Officers and 126 unarmed Community Service Officers (CSOs), and 30 part-time student workers.[41] Its officers are duly sworn police officers under 830.2(b) of the California Penal Code and, as such, are police academy graduates who have passed an extensive screening process and background checks. Before working alone, all DPS officers must complete USC's field training program. The CSOs support the DPS's Public Safety Officers by providing security services to University-owned residential complexes and other facilities. The DPS's student workers promote bicycle safety, enforce Campus bicycle regulations, and deter bicycle theft, as well as perform administrative duties, supplement bookstore security, patrol parking lots, and provide additional security presence in University residential complexes.[42]

[41] *USC Department of Public Safety 2009 Annual Security Report, http://capsnet.usc.edu/DPS/ASR/index.cfm, accessed November 30, 2009.*

[42] *Ibid.*

Table H-6
Crime Statistics by Community Police Station of Occurrence

Crime	Southwest		Newton		Citywide	
	Number	Percent [a]	Number	Percent [a]	Number	Percent [a]
Burglary	1,391	9.96	819	7.40	19,327	9.31
Robbery	1,404	10.05	1,162	10.50	13,302	6.41
Weapon	108	0.77	98	0.89	1,506	0.73
Murder	34	0.24	41	0.37	384	0.19
Rape	82	0.59	50	0.45	774	0.37
Aggravated Assault	942	6.74	1,119	10.11	11,913	5.74
Other Assault	2,534	18.14	1,836	16.59	33,229	16.01
Agnst Fam Child	70	0.50	70	0.63	935	0.45
Disorderly Conduct	13	0.09	9	0.08	448	0.22
Vagrancy	90	0.64	29	0.26	1,560	0.75
Other Sex Offence	164	1.17	172	1.55	2,831	1.36
Pimp/Pandering	0	0	1	0.01	46	0.02
Theft from Person	142	1.02	123	1.11	1,298	0.63
Embezzlement	18	0.13	26	0.23	1,348	0.65
Burglary Theft Vehicle	1,238	8.86	1,198	10.83	30,028	14.47
Other Theft	1,885	13.49	744	6.72	25,685	12.38
Vehicle Theft	1,386	9.92	1,867	16.87	22,908	11.04
Forgery/Counterfeit	150	1.07	62	0.56	2,419	1.17
Fraud	13	0.09	7	0.06	288	0.14
Vandalism	1,288	9.22	874	7.90	22,474	10.83
All Other Violence	1,020	7.30	759	6.86	14,800	7.13
Total	**13,972**	**100%**	**11,066**	**100%**	**207,503**	**100%**
Crimes per 1,000 Population	74		74		52	

Source: Captain Steven Zipperman, Southwest Area Commanding Officer, Office of the Chief of Police, LAPD, letter correspondence dated November 16, 2009.

The DPS operates 24-hours a day, 365 days a year and provides a variety of public safety and law enforcement services, including patrols, crime prevention, parking enforcement, and criminal investigation, as well as enforcement, prevention, and educational programs. The DPS has a station on the Campus, located at 3667 South McClintock Avenue. As shown in Table H-7 on page H-29, based on the most recent DPS

Table H-7
USC Department of Public Safety 2008 Criminal Offences Statistics for the University Park Campus

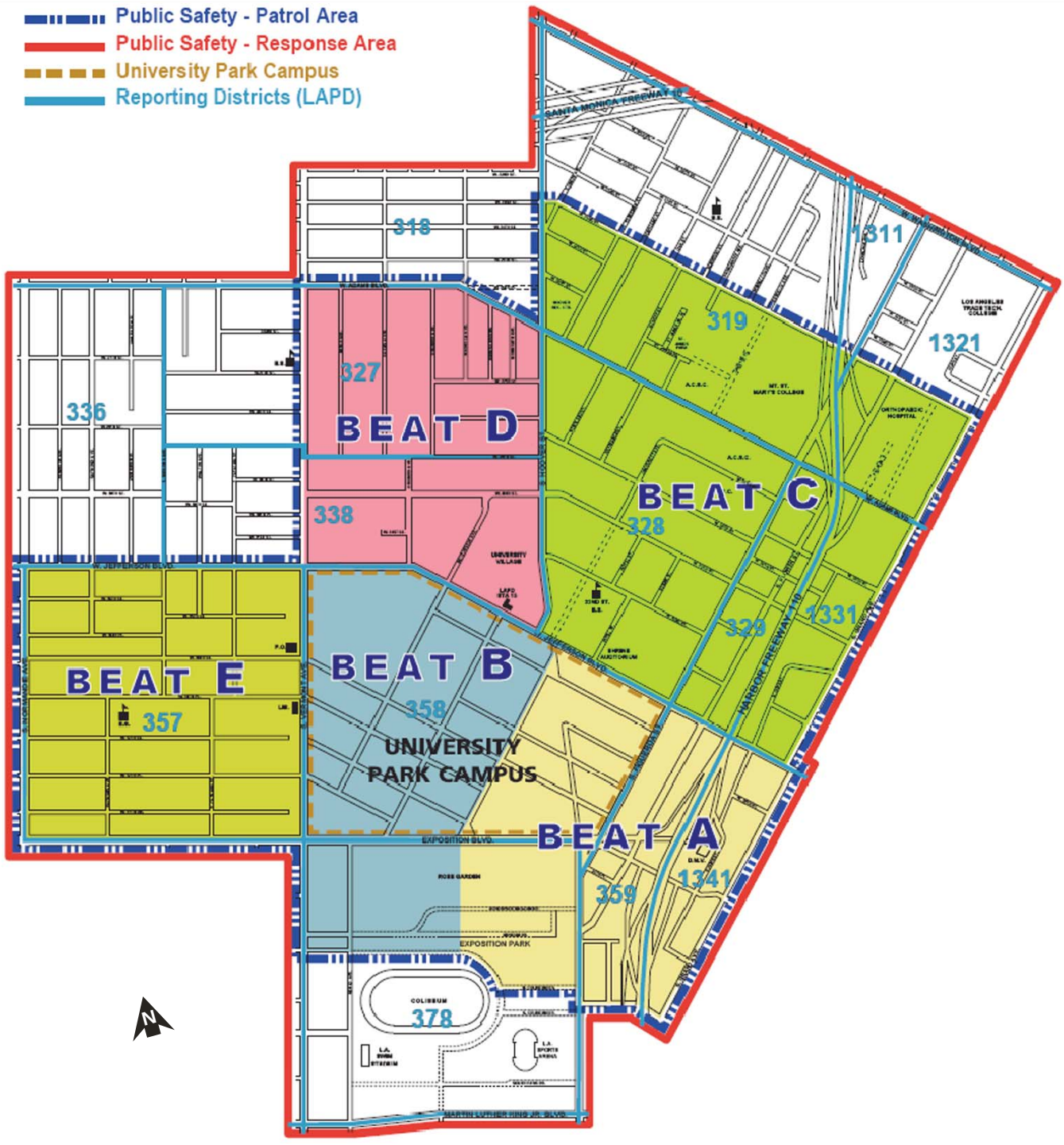
Crime	Non-Campus	On-Campus	Public Property	Subtotal by Crime Type
Murder/Non-Negligent Manslaughter	0	0	0	0
Sex Offenses – Forcible	5	6	1	12
Sex Offenses – Non-Forcible	0	0	0	0
Robbery	5	6	8	19
Aggravated Assault	7	7	0	14
Burglary	26	60	0	86
Motor Vehicle Theft	10	19	2	31
Arson	0	0	0	0
Negligent Manslaughter	0	0	0	0
Subtotals	*53*	*98*	*11*	*162*
GRAND TOTAL	**162**			

Note: Numbers do not include reports taken exclusively by the LAPD.

Source: USC Department of Public Safety 2009 Annual Security Report, http://capsnet.usc.edu/DPS/ASR/index.cfm, accessed November 30, 2009.

2009 Annual Security Report, the DPS station on the Campus reported a total of 162 crimes during 2008.

As shown in Figure H-3 on page H-30, the patrol and response boundaries of the DPS and LAPD overlap. The DPS and LAPD have concurrent jurisdiction over properties within a one-mile radius of University-owned property (Section 92600 of the California Education Code). However, the DPS has assumed primary responsibility for the Campus as well as all University owned and operated off-Campus properties and is often the first responder to on-Campus incidents. Public Safety Officers of the DPS have limited arrest authority through a Memorandum of Understanding (MOU) between USC and the LAPD and can exercise arrest powers as outlined in Penal Code Section 830.7(b). In order to maintain open communication between policing units, the DPS professionally cooperates



Source: University of Southern California, Department of Public Safety, Annual Security Report, 2008

Figure H-3
USC, Department of Public Safety
University Park Campus Patrol and Response Boundaries

with the LAPD through the dissemination of Campus information on reported crimes, trends in criminal activity, and intelligence on potential criminal behavior.[43]

The University implements a comprehensive security program throughout the Campus. Security technology provided for University departments includes intrusion alarms, omni-lock systems, closed circuit televisions, Lo Jack software for laptops (i.e., software that allows stolen computers to be located and recovered), electronic security devices and intrusion detection systems (i.e., electronic key access and associated databases), and Crime Prevention Through Environmental Design (CPTED) features. The Campus is outfitted with over 300 emergency phones, many of which are illuminated with blue emergency lights. These emergency phones provide a direct link to the DPS and are strategically located in many buildings, on each level of every parking structure, and throughout the Campus grounds. The emergency telephone system, as well as access control, fire, environmental, intrusion detection, panic, and duress systems are monitored from the DPS' Communications and Monitoring Center located in Parking Structure "A." In addition to its response and monitoring activities, the DPS provides a number of crime prevention programs. For example, the Campus Cruiser program provides both walking and vehicle escorts to those working or studying on Campus at night. In addition, the Rape Aggression Defense Training for Women program provides realistic self-defense tactics for theft, auto crimes, bombs and bomb threats, carjacking, counterfeit money, fire safety, identity theft, jogging safety, panhandlers and transients, personal safety, robbery prevention, and theft prevention.[44]

The DPS keeps the University community informed of potential on-Campus safety risks through a variety of different means. TrojansAlert allows University officials to contact registered members via text message, voice-mail, or e-mail to update them on situations presenting an ongoing risk to public safety, while DPS employees use Crime Alerts to issue alerts via e-mail and/or on-Campus flyers to students, faculty and staff warning of crimes against persons involving suspects who are still at large. USC Bulletins are posted by USC's Public Relations Department on the University home page to provide news about emergency- or safety-related situations, such as fires, that do not present an immediate danger to the University community. USC Web involves the posting of information online regarding the status of the University during major emergencies, while USC's Emergency

[43] *Ibid.*

[44] *USC DPS, accessed online at: http://capsnet.usc.edu/DPS/, accessed June 2, 2009.*

Information Line, a call-in telephone system, can provide information in the event of an emergency to up to 1,400 simultaneous calls.[45]

b. Regulatory Framework

(1) Los Angeles General Plan Framework

Chapter 9 (Infrastructure and Public Services) of the Los Angeles Citywide General Plan Framework Element (Framework Element) provides policies and objectives pertaining to police services within the City of Los Angeles. Goal 9I of the Infrastructure and Public Services Chapter provides that every neighborhood has the necessary level of police services, facilities, equipment, and manpower required to meet public safety needs.[46] Objective 9.13 and Policy 9.13.1 require the monitoring and reporting of police statistics and population projections for the purpose of evaluating existing and future needs, while Objective 9.14 requires that adequate police services, facilities, equipment, and personnel are available to meet existing and future public needs. Objective 9.15 requires police services to provide adequate public safety in emergency situations by maintaining relationships with local law enforcement agencies, state law enforcement agencies, and the National Guard. Further, the Safety Element of the Los Angeles General Plan recognizes that most jurisdictions rely on emergency personnel (e.g., police, fire, gas, and water) to respond to and handle emergencies.

Presently, the LAPD Computer Statistics Unit (COMPSTAT) implements the General Plan Framework goal of assembling statistical population and crime data to determine necessary crime prevention actions. COMPSTAT was created in 1994 by then Police Commissioner of the New York Police Department and former Chief of the Los Angeles Police Department, William J. Bratton. This system implements a multilayer approach to police protection services through statistical and geographical information system (GIS) analysis of growing trends in crime through its specialized crime control model. As such, COMPSTAT has effectively and significantly reduced the occurrence of crime in Los Angeles communities through accurate and timely intelligence regarding emerging crime trends or patterns.

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[45] *USC, Campus Safety and Emergency Preparedness, accessed online at: http://emergencyprep.usc.edu/, accessed June 9, 2009.*

[46] *City of Los Angeles General Plan Framework, page 9-5.*

(2) City of Los Angeles Charter and Administrative and Municipal Codes

The law enforcement regulations, as well as the powers and duties of the LAPD, are outlined in the City of Los Angeles' Charter, Administrative Code, and the Los Angeles Municipal Code (LAMC). Article V, Section 570 of the City of Los Angeles Charter gives power and duty to the LAPD to enforce the penal provisions of the Charter, City ordinances and state and federal law. The Charter gives responsibility to LAPD officers to act as peace officers and to protect lives and property in case of disaster or public calamity. Chapter 11, Section 22.240 of the Los Angeles Administrative Code requires the LAPD to adhere to the State of California standards described in Section 13522 of the California Penal Code. Section 13522 charges the LAPD with the responsibility of enforcing all LAMC Chapter 5 regulations related to fire arms, illegal hazardous waste disposal, and nuisances (e.g., excessive noise), and with providing support to the Department of Building and Safety Code Enforcement inspectors and the Fire Department in the enforcement of the City's Fire, Building, and Health Codes. The LAPD is also given the power and the duty to protect residents and property, and to review and enforce specific security related mitigation measures in regards to new development.

(3) South Los Angeles and Southeast Los Angeles Community Plans

The Project site is located in the South Los Angeles and Southeast Los Angeles Community areas.[47] The Community Plans for these areas both contain the police protection services goal of establishing adequate police facilities and services to provide for community public safety needs. In addition, Objective 9-1 within the South Los Angeles Community Plan and Objective 8-1 of the Southeast Los Angeles Community Plan promote the provision of adequate police facilities and personnel to correspond with population and service demands.

[47] *Both the South Los Angeles and Southeast Los Angeles Community Plans are currently being updated by the City.*

3. Environmental Impacts

a. Significance Thresholds

The *City of Los Angeles CEQA Thresholds Guide* states that the determination of significance with regard to impacts on police services shall be made on a case-by-case basis, considering the following factors:

- The population increase resulting from the proposed Project, based on the net increase of residential units or square footage of non-residential floor area.
- The demand for police services anticipated at the time of Project build out compared to the expected level of service available. Consider as applicable, scheduled improvements to LAPD services (facilities, equipment, and officers) and the proposed Project's proportional contribution to the demand.
- Whether the proposed Project includes security and/or design features that would reduce the demand for police services.

Based on the above factors, the proposed Project would have a significant impact on police services if:

- The proposed Project would generate demand for additional police protection services that substantially exceeds the capability of the LAPD to serve the Project site.
- The proposed Project would cause a substantial increase in emergency response times as a result of increased traffic congestion attributable to the proposed Project.

b. Project Design Features

The proposed Project would provide for a variety of security features to promote individual and community safety. During construction, fencing would be placed around the Project site to prevent public entry and theft. In addition, a Construction Traffic Management Plan would be implemented and Project contractors would coordinate with the LAPD to ensure emergency response access to the Project site would be maintained. Please refer to Section IV.K.1, Transportation and Circulation, of the Draft EIR prepared for the Project for further details of the plan.

During operation of the Project, the DPS would continue to coordinate with LAPD with regard to security within the Project site. DPS would continue to provide security and policing services to the Campus. In addition, the University would incorporate security features similar to those currently provided on the Campus to ensure the safety of the University community. These features would include intrusion alarms, omni-lock systems, closed circuit televisions, Lo Jack software for laptops, electronic security devices and intrusion detection systems, and CPTED features. In addition, blue-light emergency phones would be located as need throughout the various areas of the Project site. As noted above, these emergency phones provide a direct link to the DPS and are strategically located in many buildings, on each level of every parking structure, and throughout the Campus grounds. The DPS would continue to monitor the emergency telephone system, as well as access control, fire, environmental, intrusion detection, panic, and duress systems from the DPS' Communications and Monitoring Center located in Parking Structure A.[48]

c. Project Impacts Set Forth in the Draft EIR

(1) Capability of Existing Police Services

The proposed Project's residential development in Subareas 1 and 3 would increase the residential service population of the Southwest Community Police Station. Specifically, as provided in Section IV.I.3, Population, of the Draft EIR, the Project's 250 faculty units could generate a residential population of approximately 418 persons within the Southwest Community Police Station.[49] In addition, conservatively assuming that all of the new graduate beds would be occupied by students that currently reside outside of the service area of the Southwest Community Police Station, the new graduate beds would generate an additional residential population of approximately 3,240 persons. While it is anticipated that a large portion of the net new 998 undergraduate student beds[50] would be occupied by students already living within the service area of the Southwest Community Police Station, for purposes of providing a conservative analysis of police protection, it is assumed that the net new 998 undergraduate student beds would generate a residential population of 998 new persons within the service area. Thus, when accounting for the new faculty units

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[48] *USC DPS, accessed online at: http://capsnet.usc.edu/DPS/, accessed June 2, 2009.*

[49] *Based on the household size of 1.67 persons/unit for the faculty units.*

[50] *As indicated in Table IV.I-15 in Section IV.I.2, Housing, of the Draft EIR, the proposed Project would remove 1,162 existing undergraduate beds and develop 2,160 new undergraduate beds. Therefore, the net new number of undergraduate beds would be approximately 998.*

and net new student beds to be provided by the proposed Project, it is conservatively assumed that a new direct residential population of 4,656 persons within the service area of the Southwest Community Police Station would result from implementation of the proposed Project.[51] In addition, as discussed in Section IV.I.3, Population, of the Draft EIR, the proposed Project would also generate indirect growth of approximately 4,432 persons, several of whom may ultimately reside within the Southwest Community Police Station service area.

As discussed above, the Southwest Community Police Station currently has approximately 329 sworn officers and a service population of approximately 189,723 residents. Data regarding the number of annual crimes and the residential population of the Southwest Community Police Station area indicate that the Southwest Community Police Station had a crime rate of approximately 74 crimes per 1,000 residents or 0.074 crimes per capita. Assuming that the annual crime rate would remain constant at 0.074 crimes per capita, the residential population of the proposed Project within Subareas 1 and 3 that are served by the Southwest Community Police Station (4,656 residents) would potentially generate approximately 345 crimes per year as shown in Table H-8 on page H-37. When accounting for indirect population growth of approximately 4,432 residents, and conservatively assuming that all of such indirect growth would be generated within the service area boundaries of the Southwest Community Police Station, the Project would potentially generate up to approximately 673 total crimes per year as shown in Table H-8. In addition, the proposed Project's University and commercial uses and increase in daytime population within Subareas 1 and 3 would also generate an increase in calls for police protection services within the Southwest Community Police Station. It should be noted that, given that the DPS would provide safety patrol and security support to the Project site, it is anticipated that crime rate within the Project site would be considerably lower than the crime rate for areas outside of the Project site.

As the proposed Project would generate approximately 4,656 new residents, the residential population for the Southwest Community Police Station's service area would increase from approximately 189,723 residents to a total of approximately 194,379 residents. Based on this new population, the officer per resident ratio in the Southwest Community Police Station service area would be reduced from 1 officer per 577 residents to 1 officer per 591 residents as shown in Table H-9 on page H-37. In addition, conservatively assuming that all of the indirect population growth (of 4,432 residents) would

[51] *Total potential residential population from the proposed Project = 418 residents from faculty units + 3,240 graduate beds + 998 net new undergraduate beds = 4,656 residents.*

Table H-8
Estimated Crimes Associated with the Proposed Project

Crime	Crime Rate	Population Increase	Estimated Crimes
Direct Project Increase in Crimes	0.74 [a]	4,656 [b]	345
Indirect Project Increase in Crimes		4,432 [c]	328
		Total	**673**

[a] *2008 crime rate for the Southwest Community Police Station.*
[b] *4,656 = 418 residents from faculty units + 3,240 graduate beds + 998 net new undergraduate beds.*
[c] *From Section IV.I.3, Population, of the Draft EIR.*

Source: Matrix Environmental, 2010.

Table H-9
Population, Officer, Crime, and Response Time Comparison for 2008 [a]

	2008 Population	No. of Officers in 2007	Estimated 2008 Officer to Resident Ratio	Estimated Project Residential Population	Estimated Residential Population with Project	Projected Officer to Resident Ratio at Project Buildout
Direct	189,723	329	1 per 577	4,656	194,379	1 per 591
Direct + Indirect				4,656 + 4,432	198,811	1 per 604

Source: Matrix Environmental, 2010.

occur within the Southwest Community Police Station's service area, the officer per resident ratio would be further reduced to one officer per 604 residents.

Subarea 2 is located within the service area of the Newton Community Police Station, which has approximately 290 sworn officers and a service population of approximately 150,375 people. This Subarea would be developed with academic/University uses. As no residential uses would be developed within Subarea 2 as part of the proposed Project, the residential service population of the Newton Community Police Station would not be affected and would remain approximately 150,375. Therefore, the officer per resident ratio of the Newton Community Police Station's service area would remain 1 officer per 519 residents. However, the proposed Project's University uses within Subareas 2 and increase in daytime population and indirect population growth would

potentially generate an increase in calls for police protection services within the Newton Community Police Station.

In a correspondence letter dated November 16, 2009, the LAPD indicated that the Project's size would have a significant impact on police services, and therefore, recommended that crime prevention features be incorporated as part of the proposed Project.[52] As discussed above, the University would integrate its existing comprehensive security program into new development. Security features similar to those currently provided on the Campus including intrusion alarms, omni-lock systems, closed circuit televisions, Lo Jack software for laptops, electronic security devices and intrusion detection systems, CPTED features, and blue-light emergency phones would be provided. In addition, the DPS would continue to provide security and policing services to the Campus. Furthermore, follow-up consultation was held with the LAPD to review the Project and the proposed security features. Per the LAPD, based on the design and character of the proposed Project as well as the proposed security features (including continued operation of the University's DPS at its current staff and patrol levels), LAPD has determined that project impacts on police services would be less than significant.[53]

It should also be noted that the proposed Project would generate revenue to the City's general fund. This revenue could be used to fund LAPD expenditures as necessary, thereby providing additional resources to the LAPD.

(2) Emergency Access

As discussed in Section IV.E, Hazards and Hazardous Materials, of the Draft EIR for the Project, although additional traffic generated by the proposed Project could potentially cause delays in emergency response times, with implementation of the University's Emergency Operations Plan, emergency access to the Project site would be maintained at all times. Thus, the additional traffic would not significantly impact emergency vehicle access or response times.

Additionally, as discussed in Section II, Project Description, of the Draft EIR for the Project, USC has proposed the narrowing of Jefferson Boulevard. Currently, the segment

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[52] *Captain Steven Zipperman, Southwest Area Commanding Officer, Office of the Chief of Police, LAPD, letter correspondence dated November 16, 2009.*

[53] *Captain Steven Zipperman, Southwest Area Commanding Officer, Office of the Chief of Police, LAPD, letter correspondence dated April 29, 2010. (see Appendix L of the Draft EIR)*

of Jefferson Boulevard between Orchard Avenue and Hoover Street consists of five travel lanes, two travel lanes in each direction and one raised median/turn lane. In addition, parking is provided on the south side of the street (eastbound) through most of this segment and on the north side of the street (westbound) only between Orchard Avenue and McClintock Avenue (8 spaces). In order to achieve improvements in pedestrian and bicycle safety, without reducing traffic capacity, the Project proposes to eliminate the on-street parking between Orchard Avenue and Hoover Street in favor of an on-street bicycle lane and wider sidewalks. The resulting improvement would provide for five automobile travel lanes on Jefferson Boulevard (two in each direction with a raised median/turn lane and bicycle lanes on both sides). The narrowing would provide an on-street facility for cyclists traveling along Jefferson Boulevard and reduce the crossing distance for cyclists and pedestrians. This improvement would also retain vehicular travel capacity during the peak traffic periods. Therefore, this improvement would retain vehicular travel capacity during the peak traffic periods and emergency access for LAPD vehicles is not anticipated to be adversely affected.

As part of the event day traffic control plans, curb side parking along eastbound Jefferson Boulevard is currently restricted by LADOT to allow for a third vehicular travel lane eastbound during pre- and post-event traffic conditions on days when large events are scheduled at the Coliseum, Galen Center or the Shrine Auditorium. With the proposed narrowing, the additional vehicular capacity provided by the temporary third lane along eastbound Jefferson Boulevard on event days would no longer be available. The loss in vehicular capacity along Jefferson Boulevard during pre- and post-event conditions would be off-set in part by the proposed Expo LRT (currently under construction). In addition, the proposed Project proposes to build 5,400 student beds on-Campus, which would result in a large portion of the student population living on-Campus. Since a majority of large events in the Project vicinity are USC-related or draw patronage from USC students, the proposed Project would result in a much higher percentage of patrons walking or biking to the events, in addition to higher transit use. As such, the proposed Jefferson Boulevard narrowing would result in less than significant impacts on emergency access during events.

(3) Secondary Impacts due to Housing Backfill

As analyzed in Section IV.I.2, Housing, of the Draft EIR, the proposed Project's development of student and faculty housing as well as future student housing developments may assist in returning existing housing stock that had previously been converted to University housing back to the general non-University community. Specifically, the proposed Project and other new student housing projects approved or

underway in the vicinity are anticipated to result in the return of approximately 896 residential units to the community, thus resulting in an indirect backfill population increase of approximately 2,821 persons.[54] The backfill of units that may result from students, faculty, and staff vacating existing residential units within the Southwest Community Police Station's service area may result in additional calls for service. However it should be noted that these existing residential units are already served by the LAPD. Thus, the additional demand on LAPD service as a result of housing backfill would be incremental, and is not anticipated to require the addition of a new police station or the expansion, consolidation, or relocation of an existing station to maintain service. Therefore, secondary impacts on LAPD's capability to provide adequate police protection services would be less than significant.

4. Mitigation Measures Included in Draft EIR

As stated in the Draft EIR, with implementation of the Project Design Features, Project-level impacts on police protection services would be less than significant. Nonetheless, the following mitigation measures are proposed to further improve safety and minimize crime at the Project site.

a. Construction

Mitigation Measure -3: The Applicant shall develop and implement a Construction Traffic Management Plan that shall include notification to the LAPD of any lane closures or other road construction.

Mitigation Measure -4: During Project construction, the Applicant shall ensure that LAPD access will remain clear and unobstructed.

Mitigation Measure -5: During Project construction, the Applicant shall implement security measures including security fencing, lighting, and the use of a seven-day, 24-hour security patrol.

[54] *Based on the average household size of 3.148 person/unit for renter occupied units in the study area as indicated in Table IV-7 of the Employment Housing and Population Impacts Technical Report prepared by HR&A Advisors, Inc. (see Appendix J of the Draft EIR).*

b. Operation

Mitigation Measure -6: The Applicant shall consult with the Los Angeles Police Department Crime Prevention Unit on crime prevention features appropriate for the design of the Project.

Mitigation Measure -7: Entryways, elevators, lobbies, and parking areas shall be well illuminated and designed to eliminate areas of concealment.

Mitigation Measure -8: Upon Project completion, the Project Applicant shall provide the Southwest Area and Newton Area Commanding Officer with a diagram of each portion of the property, including access routes, and provide additional information that might facilitate police response.

Mitigation Measure -9: The Applicant shall complete an annual assessment of on-site Project-related crime and, in response, develop and implement additional security measures.

5. Evaluation of Impacts in Nexus Study Area

This evaluation of the Nexus Study Area extends beyond the requirements of CEQA, and the analysis of police protection in the Draft EIR is adequate for the Project. The analysis of impacts within the Nexus Study Area is the same as that presented above. As indicated above, with implementation of Project Design Features, the proposed Project would not result in significant impacts to the Southwest or Newton Community Police Stations that serve the Study Area, nor would the proposed Project result in significant impacts associated with emergency access in the Study Area. Thus, the analysis and conclusions regarding impacts within the Nexus Study Area are the same as those identified in the Draft EIR, which have been determined to be less than significant.

Section I. Conclusion

As demonstrated in each of the preceding sections, no new environmental impacts would occur within the Nexus Study Area that have not already been identified in the Draft EIR. In addition, this Nexus Study does not contain any new analyses or mitigation measures for the Proposed Project that are required by CEQA. Rather, the analysis and conclusions regarding environmental impacts within the Nexus Study Area are the same as those identified in the Draft EIR. All of the mitigation measures set forth for the Proposed Project that are included within the EIR are also listed below by environmental topic.

A. Aesthetics, Views, Light/Glare, and Shading

a. Construction

Mitigation Measure A-1: Temporary fencing (e.g., chain linked or wood) with screening material shall be used around the perimeter of a development site to buffer views of construction equipment and materials. In addition, the following fencing requirements shall be implemented:

- The applicant shall affix or paint a plainly visible sign, on publically accessible portions of the construction barriers, with the following language: “POST NO BILLS”.
- Such language shall appear at intervals of no less than 25 feet along the length of the publically accessible portions of the barrier.
- The applicant shall be responsible for maintaining the visibility of the required signage and for maintaining the construction barrier free and clear of any unauthorized signs within 48 hours of occurrence.
- A sign shall be posted with the contact number of the construction manager so that he/she may address safety and other issues related to construction.

Mitigation Measure A-2: The Applicant shall ensure through appropriate postings and daily visual inspections that no unauthorized materials are posted on any temporary construction barriers or temporary pedestrian walkways, and that such temporary barriers and

walkways are maintained in a visually attractive manner throughout the construction period.

b. Operation

Mitigation Measure A-3: All landscaped areas shall be maintained in accordance with a landscape plan, including an automatic irrigation plan, prepared by a licensed landscape architect to the satisfaction of the City of Los Angeles Department of Planning.

Mitigation Measure A-4: All new sidewalks along the proposed Project's street frontages shall be paved with concrete or other safe, non-slip material to create an environment accommodating to pedestrians.

Mitigation Measure A-5: All new street and pedestrian lighting within the public right-of-way required for the proposed Project shall be approved by the Bureau of Street Lighting and tested in accordance with its requirements.

Mitigation Measure A-6: All new street and pedestrian lighting required for the proposed Project, including lighting for the proposed athletic field, shall be shielded and directed away from any off-site light-sensitive uses.

Mitigation Measure A-7: All exterior windows and glass used on building surfaces shall be non-reflective or treated with a non-reflective coating. In addition, the exterior of the proposed structure shall be constructed of materials such as, but not limited to, high-performance and/or non-reflective tinted glass (no mirror-like tints or films) and pre-cast concrete or fabricated wall surfaces to minimize glare and reflected heat.

B. Air Quality

a. Construction

Mitigation Measure B-1: All unpaved demolition and construction areas shall be wetted at least three times daily during excavation and construction, and temporary dust covers shall be used to reduce dust emissions and meet SCAQMD District Rule 403. Wetting and/or use of soil binders could reduce fugitive dust by as much as 61 percent in comparison to 55 percent for twice daily.

Mitigation Measure B-2: The owner or contractor shall keep the construction area sufficiently dampened to control dust caused by construction and

hauling, and at all times provide reasonable control of dust such that dust emissions are not visible in the atmosphere beyond the property line of the emission source or the dust emissions do not exceed 20 percent opacity (as determined by the appropriate test method included in the Rule 403 Implementation Handbook), if the dust emission is the result of movement of a motorized vehicle.

Mitigation Measure B-3: All loads shall be secured by trimming, watering or other appropriate means to prevent spillage and dust. Use of dry rotary brushes for removal of mud or dirt from adjacent public shall be prohibited except where preceded or accompanied by sufficient wetting to limit the visible dust emissions. In addition, use of blower devices for this activity shall be expressly forbidden.

Mitigation Measure B-4: All materials transported off-site shall be either sufficiently watered or securely covered to prevent excessive amounts of dust that would result in dust emissions visible in the atmosphere beyond the property line of the emission source or the dust emissions exceed 20 percent opacity (as determined by the appropriate test method included in the Rule 403 Implementation Handbook), if the dust emission is the result of movement of a motorized vehicle.

Mitigation Measure B-5: All earth moving or excavation activities shall be discontinued during periods of high winds (i.e., greater than 25 mph), so as to prevent excessive amounts of dust that would result in dust emissions visible in the atmosphere beyond the property line of the emission source or the dust emissions exceed 20 percent opacity (as determined by the appropriate test method included in the Rule 403 Implementation Handbook), if the dust emission is the result of movement of a motorized vehicle.

Mitigation Measure B-6: All equipment shall be properly tuned and maintained in accordance with manufacturer's specifications and catalytic converters shall be installed on all heavy machinery working on-site, if feasible.

Mitigation Measure B-7: General contractors shall maintain and operate construction equipment so as to minimize exhaust emissions. During construction, trucks and vehicles in loading and unloading queues shall have their engines turned off after five minutes when not in use, to reduce vehicle emissions. Construction activities should be phased and scheduled to avoid emissions peaks and pollutant emission generating construction activities discontinued during second-stage smog alerts.

Mitigation Measure B-8: Petroleum powered construction activity shall utilize electricity from power poles rather than temporary diesel power generators and/or gasoline power generators unless use of electricity from power poles would present a safety concern to the general public or USC faculty, staff, or students.

Mitigation Measure B-9: Proposed buildings shall be designed to minimize the need for the application of architectural coatings. Where the application of architectural coatings is necessary, low- and non-VOC containing paints, sealants, adhesives, solvents, asphalt, and architectural coatings, or pre-fabricated architectural panels, shall be used to reduce VOC emissions.

Mitigation Measure B-10: All areas where construction vehicles are parked, staged, or operating shall be visibly posted with signs stating "No idling in excess of 5 minutes or shut off engines".

Mitigation Measure B-11: The project representative shall make available to the lead agency and SCAQMD a comprehensive inventory of all off-road construction equipment, equal to or greater than 50 horsepower, that will be used an aggregate of 40 or more hours during any portion of the construction project. The inventory shall include the horsepower rating, engine production year, and certification of the specified Tier standard. A copy of each unit's certified tier specification, BACT documentation, and CARB or AQMD operating permit shall be provided onsite at the time of mobilization of each applicable unit of equipment. Off-road diesel-powered construction equipment shall meet the Tier standards based on the following schedule:

- January 1, 2011, to December 31, 2014: All off-road diesel-powered construction equipment greater than 50 hp shall meet Tier 3 off-road emissions standards. In addition, all diesel construction equipment shall be outfitted with BACT devices certified by CARB. Any emissions control device used by the contractor shall achieve emissions reductions that are no less than what could be achieved by a Level 3 diesel emissions control strategy for a similarly sized engine as defined by CARB regulations.

- Post-January 1, 2015: All off-road diesel-powered construction equipment greater than 50 hp shall meet the Tier 4 emission standards, where available. In addition, all diesel construction equipment shall be outfitted with BACT devices certified by CARB. Any emissions control device used by the contractor shall achieve emissions reductions that are no less than what could be

achieved by a Level 3 diesel emissions control strategy for a similarly sized engine as defined by CARB regulations, until such time that a Tier 4 replacement equipment is available.

Mitigation Measure B-12: To ensure compliance with SCAQMD Rule 403 and dust control requirements and mitigation measures, a person shall be designated as an on-site construction mitigation manager. This construction mitigation manager shall be identified prior to construction. Where applicable for large operations as defined in SCAQMD Rule 403, this person shall have completed the AQMD Fugitive Dust Control Class and been issued a valid Certificate of Completion and have a current CARB certification for Visible Emission Evaluation. Duties of the construction mitigation manager should include but are not limited to:

- Implementing a comprehensive communications strategy including establishment of a construction mitigation hotline.
- Create construction surveys and monitoring plans to control dust, vibrations, work hours, and noise as well as issues such as preventing contractor parking on residential streets.
- Implementing procedures to address complaints in a timely and effective manner.
- Monitoring the dust control program and ordering increased watering, as necessary, to prevent transport of dust offsite.

Mitigation Measure B-13: The University shall ensure that emissions from all off-road diesel powered equipment used on the Project site do not exceed 40 percent opacity for more than three minutes in any one hour. Any equipment found to exceed 40 percent opacity (or Ringelmann 2.0) shall be repaired immediately, and the lead agency and SCAQMD shall be notified within 48 hours of identification of non-compliant equipment. A visual survey of all in-operation equipment shall be made at least weekly, and a monthly summary of the visual survey results shall be kept on site throughout the duration of the Project, except that the monthly summary shall not be required for any 30-day period in which no construction activity occurs. The monthly summary shall include the quantity and type of vehicles surveyed as well as the dates of each survey. The SCAQMD and/or other officials may conduct periodic site inspections to determine compliance.

Mitigation Measure B-14: The University shall locate stationary construction equipment (e.g., generators) exhaust away from sensitive receptors

such as fresh air intakes to buildings, air conditioners and operable windows.

Mitigation Measure B-15: The University shall employ a construction site manager to verify that engines are properly maintained and keep a maintenance log.

Mitigation Measure B-16: Diesel trucks used by construction contractor(s) at the site shall meet post-1996 diesel requirements. In addition, suppliers and vendors (e.g., soil export, concrete, lumber) that potentially could result in more than one delivery per day to the Project site shall have written into contracts a requirement that diesel trucks accessing the Project site must meet EPA's on-road diesel post-1996 requirements.

Mitigation Measure B-17: The use of conventional cut-back asphalt for paving shall be prohibited and the maximum VOC content of asphalt emulsion shall be restricted to standards set in SCAQMD Rule 1108.1.

Mitigation Measure B-18: A publicly visible sign with the telephone number and person to contact regarding dust complaints shall be clearly posted at the Project site. This person shall respond and take corrective action within 24 hrs.

Mitigation Measure B-19: Prior to land use clearance, the University shall include, as a note on a separate informational sheet to be recorded with map, dust control requirements. All requirements shall be shown on grading and building plans. In addition, prior to final occupancy, the University shall demonstrate that all ground surfaces are covered or treated sufficiently to minimize fugitive dust emissions.

Mitigation Measure B-20: All roadways, driveways, sidewalks, etc., to be paved shall be completed as soon as possible. In addition, building pads shall be laid as soon as possible after grading unless seeding or soil binders are used.

Mitigation Measure B-21: The University shall establish a program to make available MERV 10 filters during site grading/excavation activities within Subarea 3. Recipients shall be limited to sensitive uses (e.g., residential, schools, daycare centers) within the following area: south of West 29th Street; east of South Vermont Avenue; north of West Jefferson Boulevard; and west of uses immediately east of Hoover Street and also including 32nd Street Elementary School.

Mitigation Measure B-22: Monthly routine testing of emergency generators shall be scheduled on different days to minimize short-term emissions. If the emergency generators are owned by private enterprises leasing space from USC, the day on which the generators may be tested shall be specified in the lease.

b. Operation

Mitigation Measure B-23: The Applicant shall schedule deliveries during off-peak traffic periods to encourage the reduction of trips during the most congested periods.

C. Cultural Resources

Mitigation Measure C-1: The Applicant shall ensure that archival documentation (similar to Historic American Building Survey [HABS] level I documentation) will be prepared for individually eligible structures or district contributors that will be demolished prior to commencement of demolition. Copies of the documentation should be stored on campus in USC's archival repository. If requested, copies will be provided to the Office of Historic Resources and the Los Angeles Conservancy.

HABS Level I documentation shall consist of the following:

- architectural and historical narrative;
- archival drawings;
- if adequate archival drawings are not available, measured drawings will be produced; and
- large format photography.

Mitigation Measure C-2: Prior to receipt of the first Certificate of Occupancy, the Applicant shall nominate individual resources that have been identified in the EIR as potentially eligible for the National Register, California Register or as Los Angeles Historic-Cultural Monuments to the appropriate programs based on the significance of the individual buildings. (See Mitigation Measure C-5 for district nomination).

Mitigation Measure C-3: To ensure that historic buildings are appropriately renovated and maintained and that the impact of new construction is mitigated to a less than significant level, the University shall implement the development guidelines and procedures established in the Adaptive Mitigation Management Approach, a draft of which is

included as Appendix C-3 to the Draft EIR, which shall function as a rehabilitation and maintenance plan and a plan for compatible new construction for the identified historic district and its contributing features. This will ensure that historic structures and landscapes, both individually significant and contributors to the identified historic district, will be rehabilitated according to the *Secretary of the Interior's Standards*, and maintained according to preservation maintenance guidelines. The guidelines shall be consistent with *The Secretary of the Interior's Standards for the Treatment of Historic Properties with Guidelines for Preserving, Rehabilitating, Restoring, and Reconstructing Historic Buildings or The Secretary of the Interior's Standards for the Treatment of Historic Properties with Guidelines for the Treatment of Cultural Landscapes.* The plan shall include:

- historic overview and context;
- identification of individual historic resources assessments, including character-defining features;
- principles of rehabilitation;
- guidelines for exterior and site rehabilitation and maintenance; and
- a Procedure for Project Implementation that establishes the specific process for project review for the rehabilitation, reuse, demolition, or adjacent new construction of buildings or sites within the USC University Park Campus Historic District, requires the services of a qualified historic preservation consultant, and includes review by the Office of Historic Resources (refer to Mitigation Measure C-6 for further discussion of this requirement).

Mitigation Measure C-4: Prior to receipt of the first Certificate of Occupancy, the Applicant shall prepare an interpretative plan for the Historic District**.** This plan will be used as part of USC's ongoing community outreach efforts and on-campus orientation and tours. Interpretive displays in the public areas of district contributors will be considered, as appropriate.

Mitigation Measure C-5: Prior to receipt of the first Certificate of Occupancy, the Applicant shall nominate the historic district identified as potentially eligible for the California Register for listing in the California Register.

Mitigation Measure C-6: In accordance with the Procedure for Project Implementation in the Adaptive Mitigation Management Approach

(see Mitigation Measure C-3), the University shall work with qualified preservation professionals to ensure Standards-compliant projects on campus, including the design of rehabilitation projects for district contributors, compatibility of new construction within the historic district, and periodic site visits to monitor construction adjacent to district contributors to ensure that such activities comply with the *Secretary of the Interior's Standards*. Historic professionals shall meet the National Park Service standards.[1] The Procedure for Project Implementation shall apply to the proposed construction, alteration, addition, demolition, reconstruction, relocation, or removal of any building, object, or site that is:

- identified as an individual resource;
- identified as a contributor to the USC University Park Campus Historic District;
- identified as a resource that is both an individual resource and a contributor to the USC University Park Campus Historic District;
- identified as a non-contributor to this Historic District; or
- a potential development site located within the Historic District that is currently vacant or otherwise does not contain a building.

For each type of potential activity, the Procedure for Project Implementation shall indicate: the role and responsibilities of the qualified historic professional; whether review is required by the Office of Historic Resources; and what type of public review and/or comment period (if any) is required.

Mitigation Measure C-7: The Applicant shall offer up to $25,000 in relocation assistance to any interested party willing to relocate the two (University Club – Faculty Center and Registration Building) historic buildings that are slated for demolition provided the interested party can demonstrate a commitment to a rehabilitation of the historic building in compliance with the Secretary of Interior Standards. Such offering shall be made prior to the issuance of a demolition permit for either of these buildings.

Mitigation Measure C-8: If a unique archaeological resource is discovered during Project construction activities, work in the area shall cease and

[1] *U.S. Department of the Interior, National Park Service. "Archeology and Historic Preservation: Secretary of the Interior's Professional Qualifications Standards." http://www.nps.gov/history/local-law/arch_stnds_9.htm.*

deposits shall be treated in accordance with Federal, State, and local guidelines, including those set forth in California Public Resources Code Section 21083.2. In addition, if it is determined that an archaeological site is a historical resource, the provisions of Section 21084.1 of the Public Resources Code and CEQA Guidelines Section 15064.5 would be implemented.

Mitigation Measure C-9: A qualified paleontologist shall be retained to perform periodic inspections of excavation and grading activities of the Project site where excavations into the older Quaternary Alluvium may occur. The services of a qualified paleontologist shall be secured by contacting the Natural History Museum of Los Angeles County. The frequency of inspections will be based on consultation with the paleontologist and will depend on the rate of excavation and grading activities, the materials being excavated, and if found, the abundance and type of fossils encountered. Monitoring shall consist of visually inspecting fresh exposures of rock for larger fossil remains and, where appropriate, collecting wet or dry screened sediment samples of promising horizons for smaller fossil remains.

If a potential fossil is found, the paleontologist shall be allowed to temporarily divert or redirect grading and excavation activities in the area of the exposed fossil to facilitate evaluation and, if necessary, salvage. At the paleontologist's discretion and to reduce any construction delay, the grading and excavation contractor shall assist in removing rock samples for initial processing. Any fossils encountered and recovered shall be prepared to the point of identification and catalogued before they are donated to their final repository. Any fossils collected should be donated to a public, non-profit institution with a research interest in the materials, such as the Natural History Museum of Los Angeles County. Accompanying notes, maps, and photographs shall also be filed at the repository. If fossils are found, following the completion of the above tasks, the paleontologist shall prepare a report summarizing the results of the monitoring and salvaging efforts, the methodology used in these efforts, as well as a description of the fossils collected and their significance. The report shall be submitted by the applicant to the lead agency, the Natural History Museum of Los Angeles County, and representatives of other appropriate or concerned agencies to signify the satisfactory completion of the Project and required mitigation measures.

D. Geology and Soils

Mitigation Measure D-1: The design and construction of the proposed Project shall conform to the Los Angeles Building Code seismic standards as

approved by the City of Los Angeles Department of Building and Safety.

Mitigation Measure D-2: Geotechnical observation and testing shall be completed during the placement of new compacted fills, foundation construction, buttresses, stabilization fills, ground improvement, and any other geotechnical-related construction for each development occurring within the Project site in accordance with the requirements set forth by the City of Los Angeles Department of Building and Safety.

Mitigation Measure D-3: Individual development projects that require new building permits within the Project site shall be required to prepare site-specific geotechnical reports. The geotechnical reports shall include detailed geotechnical recommendations with regard to pile or drill caissons, footings, slabs, fill, shoring, retaining walls, site drainage, and other construction features which address the specific site conditions, design, and footprint of the proposed buildings. The geotechnical reports shall be prepared to the satisfaction of the City of Los Angeles Department of Building and Safety.

Mitigation Measure D-4: Development occurring in the former athletic field area of the Campus shall be required to provide a current subsurface geotechnical report. Specific geotechnical recommendations addressing the underlying soils shall be incorporated into the geotechnical reports for this area, and all additional geotechnical mitigation measures would be followed both prior to and during construction.

Mitigation Measure D-5: Prior to the issuance of building or grading permits, the Applicant shall submit a geotechnical report prepared by a registered civil engineer or certified engineering geologist to the written satisfaction of the City of Los Angeles Department of Building and Safety.

Mitigation Measure D-6: Excavation and grading activities shall be scheduled during dry weather periods. If grading occurs during the rainy season (October 15 through April 1), diversion dikes shall be constructed to channel runoff around the site. Channels shall be lined with grass or roughened pavement to reduce runoff velocity.

Mitigation Measure D-7: Appropriate erosion control and drainage devices shall be provided to the satisfaction of the City of Los Angeles Department of Building and Safety. These measures include interceptor terraces, berms, vee-channels, and inlet and outlet structures, as specified by

Section 91.7013 of the Los Angeles Building Code, including planting fast-growing annual and perennial grasses in areas where construction is not immediately planned.

Mitigation Measure D-8: Stockpiled and excavated soil shall be covered with secured tarps or plastic sheeting.

E. Hazards and Hazardous Materials

Mitigation Measure E-1: If during construction activities, including demolition, excavation and grading work, discolored or odorous soils are uncovered, construction activities shall be halted until the impacted area can be evaluated. Soil sampling and, if appropriate, soil vapor sampling shall be conducted in accordance with applicable regulatory guidance documents to determine if the contamination, if any, is above regulatory levels or guidelines. Personnel conducting the sampling shall be appropriately trained in accordance with the Occupational Safety and Health Administration (OSHA) Hazardous Waste Operations and Emergency Response Standard (HAZWOPER). If contamination is detected above acceptable regulatory levels, remediation activities shall be conducted. The remediation could consist of excavation and disposal of impacted soil; in-situ treatment; and/or vapor extraction. If necessary, remedial efforts shall be conducted under the oversight of regulatory agencies including, but not limited to, the Department of Toxic Substances Control (DTSC); the City of Los Angeles Fire Department (LAFD); and the Regional Water Quality Control Board (RWQCB).

Mitigation Measure E-2: Monitoring and testing of USTs shall be continued in accordance with applicable regulations. If an UST is uncovered during the construction activities, the UST shall be removed (abandoned) in accordance with LAFD regulations. Soil sampling of the tank excavation shall be completed and if soil contamination is found, the impacted soil shall be remediated (excavated) to acceptable regulatory levels.

Mitigation Measure E-3: Prior to the issuance of demolition permits for individual construction sites within the Project site, the University shall submit verification to the City of Los Angeles Department of Building and Safety that an asbestos survey has been conducted at all existing buildings located on the construction site. If asbestos is found, the University shall follow all procedural requirements and regulations of South Coast Air Quality Management District Rule 1403.

Mitigation Measure E-4: Prior to the issuance of demolition permits for individual construction sites within the Project site, the University shall submit verification to the City of Los Angeles Department of Building and Safety that a lead-based paint survey has been conducted at all existing buildings located on the construction site. If lead-based paint is found, the University shall follow all procedural requirements and regulations for proper removal and disposal of the lead-based paint.

Mitigation Measure E-5: During subsurface excavation activities, including borings, trenching, and grading, Cal-OSHA worker safety measures shall be implemented as required to preclude an exposure to unsafe levels of soil gases, including but not limited to methane.

Mitigation Measure E-6: Prior to issuance of a building permit for a structure located within a Methane Zone or Methane Buffer Zones, the Applicant shall comply with the applicable requirements of the City's Methane Seepage Regulations as set forth in Section 91.7101, *et seq.* of the City's Municipal Code.

Mitigation Measure E-7: During construction activities, appropriately trained construction foremen and/or supervisors shall be available to monitor the construction site for impacted soil. The foremen and/or supervisors shall be 40-hour OSHA HAZWOPER trained. In addition, field monitoring equipment (such as photo-ionization detectors, flame ionization detectors, organic vapor analyzers, or 4-gas meters) shall be utilized by construction personnel to monitor site conditions for potential hazardous conditions. If significant levels are detected by the monitoring equipment, or if conditions are identified by the construction personnel, the construction activities shall stop until further assessment of the situation can be completed by appropriate health and safety personnel.

H. Noise

a. Construction

Mitigation Measure H-1: A temporary, continuous and impermeable minimum 10 feet high, sound barrier wall shall be erected between the Project construction area and adjacent off-site noise sensitive receptors when construction activities are within 250 feet of the noise sensitive receptors and there are no intervening buildings between the construction area and the noise receptors.

Mitigation Measure H-2: Construction activities shall not occur beyond the City's allowable daytime hours of 7:00 A.M. to 9:00 P.M. Monday through Friday, on Saturday before 8:00 A.M. and after 6:00 P.M., and no construction activities shall occur on Sundays or any national holidays.

Mitigation Measure H-3: Power construction equipment shall be equipped with state-of-the-art noise shielding and muffling devices. All equipment shall be properly maintained to assure that no additional noise due to worn or improperly maintained parts would be generated.

Mitigation Measure H-4: Stationary source equipment that is flexible with regard to relocation (e.g., generators and compressors) shall be located so as to maintain the greatest distance possible from sensitive land uses and unnecessary idling of equipment shall be prohibited.

Mitigation Measure H-5: Loading and unloading of heavy construction materials shall be located on-site and away from noise-sensitive uses, to the extent feasible.

J.1 Public Services – Police Protection

a. Construction

Mitigation Measure J.1-1: The Applicant shall develop and implement a Construction Traffic Management Plan that shall include notification to the LAPD of any lane closures or other road construction.

Mitigation Measure J.1-2: During Project construction, the Applicant shall ensure that LAPD access will remain clear and unobstructed.

Mitigation Measure J.1-3: During Project construction, the Applicant shall implement security measures including security fencing, lighting, and the use of a seven-day, 24-hour security patrol.

b. Operation

Mitigation Measure J.1-4: The Applicant shall consult with the Los Angeles Police Department Crime Prevention Unit on crime prevention features appropriate for the design of the Project.

Mitigation Measure J.1-5: Entryways, elevators, lobbies, and parking areas shall be well illuminated and designed to eliminate areas of concealment.

Mitigation Measure J.1-6: Upon Project completion, the Project Applicant shall provide the Southwest Area and Newton Area Commanding Officer with a diagram of each portion of the property, including access routes, and provide additional information that might facilitate police response.

Mitigation Measure J.1-7: The Applicant shall complete an annual assessment of on-site Project-related crime and, in response, develop and implement additional security measures.

J.2 Public Services – Fire Protection and Emergency Medical Services

Mitigation Measure J.2-1: The Project Applicant shall submit building plans including a plot plan for approval by the Los Angeles Fire Department prior to the recordation of the final map or approval of building permit. The plot plan shall include the following:

- Fire lanes, where required, would be a minimum of 20 feet in width clear to sky, posted with a sign of no less than three square feet in area and/or painted with "Fire Lane No Parking" and have an adequate approved turning area. When a fire lane must accommodate the operation of Fire Department aerial ladder apparatus or where fire hydrants are installed, those portions would not be less than 28 feet in width;
- No building or portion of a building would be constructed more than 150 feet from the edge of a roadway, of an improved street, access road, or designated fire lane, unless otherwise approved;
- Access for LAFD apparatus and personnel to and into all structures;
- Locations and sizes of all fire hydrants; and
- All structures would be within 300 feet of an approved fire hydrant.

Mitigation Measure J.2-2: The Project Applicant shall consult with the Los Angeles Fire Department and incorporate fire prevention and suppression features appropriate to the design of the proposed Project.

Mitigation Measure J.2-3: During construction, the following measures shall be implemented:

- Access roads, including fire lanes, shall be maintained in an unobstructed manner, removal of obstructions shall be at the owner's expense. The entrance to all required fire lanes or required private driveways shall be posted with a sign no less than three square feet in area in accordance with Section 57.09.05 of the Los Angeles Municipal Code.

- No framing shall be allowed until the roadway is installed to the satisfaction of the Fire Department.

- Any required fire hydrants to be installed shall be fully operational and accepted by the Fire Department prior to any building construction.

- All parking restrictions for fire lanes shall be posted and/or painted prior to any Temporary Certificate of Occupancy being issued.

J.3 Public Services – Schools

a. Construction

Mitigation Measure J.3-1: Prior to construction, the Applicant shall contact the LAUSD Transportation Branch regarding potential impact to school bus routes.

Mitigation Measure J.3-2: Unrestricted access for school buses shall be maintained on street right-of-ways during construction.

Mitigation Measure J.3-3: During Project construction, construction vehicles shall comply with the provisions of the California Vehicle Code, including stopping when encountering school buses using red flashing lights.

Mitigation Measure J.3-3: Project construction activities shall not endanger passenger safety or delay student drop-off or pick-up due to changes in traffic patterns, lane adjustments, altered bus stops, or traffic lights.

Mitigation Measure J.3-4: Safe and convenient pedestrian routes to LAUSD schools shall be provided.

Mitigation Measure J.3-5: Project contractors shall maintain on-going communication with school administration at affected schools, providing sufficient notice to forewarn students and

parents/guardians when existing pedestrian and vehicle routes to school may be impacted.

Mitigation Measure J.3-6: If necessary, appropriate traffic controls (signs and temporary signals) shall be installed to ensure pedestrian and vehicular safety during construction.

Mitigation Measure J.3-7: Hauling past school sites shall be prohibited, except when school is not in session. If that is infeasible, hauling shall be prohibited during school arrival or dismissal times.

Mitigation Measure J.3-8: No staging or parking of construction-related vehicles, including worker-transport vehicles, shall be permitted adjacent to school sites.

Mitigation Measure J.3-9: Crossing guards shall be provided when safety of students may be compromised by construction-related activities at impacted school crossings.

Mitigation Measure J.3-10: Barriers and/or fencing shall be installed around construction sites to secure construction equipment and site to prevent trespassing, vandalism, and attractive nuisances.

Mitigation Measure J.3-11: Security patrols shall be provided to minimize trespassing, vandalism, and short-cut attractions.

K.1 Transportation and Circulation

Mitigation Measure K.1-1: Transportation Demand Management (TDM) Program. As part of the proposed Project, USC would expand its existing TDM program. A preliminary TDM program shall be prepared and provided for DOT review prior to the issuance of a building permit for the Project's first new building that is more than 50,000 square feet and a final TDM program approved by DOT is required prior to the issuance of a certificate of occupancy for the Project's first new building that is more than 50,000 square feet. The TDM plan shall include, but is not limited to, the following measures:

- Tram/Shuttle System Modifications: USC would modify its tram and shuttle system and make route, shuttle-stop modifications, and additions which would result in increased connectivity to the Expo LRT.(currently under construction) and other public transit services like the Downtown Area Shuttle (DASH), Metro bus lines, Metro Rapid, etc.

- On-Campus TDM Coordinator: USC would employ a full-time on-campus TDM coordinator to implement the various TDM programs provided by the University. Some of the activities a coordinator would oversee include assisting students, faculty and staff with questions about various TDM programs offered, coordinating University's efforts with other public/private agencies, etc.

- Transit-Use Training during Student Orientations: USC would include transit-use (rail, bus, University tram, and shuttle-bus) training as part of new student orientations. This would inform new students about the various programs and subsidies offered by the University to encouraging transit use. The training may also include information relating to other TDM programs such as Carpool, Vanpool, Ride-Share etc.

- Subsidize Transit Passes: USC would continue to subsidize transit passes in exchange for parking permits to encourage transit use among students, faculty and staff as their primary mode of transportation to/from the University.

- Mobility Hub: USC would contribute towards establishing a "Mobility Hub" on- or along the perimeter of the campus. The "Mobility Hub" is likely to include secure bike parking, bike sharing, fold-n-go bike leasing program, and car sharing system. USC would provide a storefront space (approx 250 square feet) on-campus and shared car parking spaces within its parking facilities to facilitate the Mobility Hub operations.

- Transportation Information Center: USC would establish a transportation information center on-campus which would provide transit-maps, schedules, and information related to available alternative transportation modes and TDM programs offered by the University.

- Work with MTA and LADOT to Implement First/Last Mile Strategies: USC would work with MTA and LADOT to assist in implementing first/last mile strategies to connect students, faculty, staff and visitors to various transit lines, stations, bus-stops, etc.

- Shuttle To/From LA Live and USC: USC would provide a shuttle-bus between LA Live and the University campus for students traveling to/from LA Live.

- Expansion of Car Share Program: USC would expand its existing car-sharing program, ZipCar, by adding 6 more cars in the

immediate future to the 16 cars that are currently available to students, faculty and staff.

- Daily Car Rentals: USC would collaborate with a national car rental company to establish a car rental facility on-campus. The rental car company would provide daily car rentals to students, faculty and staff.

- Expansion of Vanpool Program: USC would expand the existing Vanpool program by adding services to Santa Clarita and Oxnard in the immediate future. This service could also be extended to other locations over time if demand becomes feasible.

- Ride-Share Matching System: USC is collaborating with Zimride, an online social networking site for ridesharing. Membership to the site would be free and the system would allow for student, faculty and staff to share seats in cars or ride with other USC patrons to/from common locations. The site would help USC patrons to offer or request rides for commutes, road trips, and popular events.

- Child Care: USC shall provide on-site child care or contribute to off-site child care within walking distance.

- Employee Showers: USC shall provide showers and lockers for employees bicycling or walking to work.

- Bicycle Parking: USC shall provide secure, weather-protected bicycle parking for employees.

- EV Charging Facilities: USC shall provide additional EV charging facilities to meet demand.

- CNG Fueling Facility: USC shall provide additional capacity at its CNG fueling facility to meet demand.

- Parking Fees for EVs and CNG Vehicles: USC shall charge reduced or no parking fee for EVs and CNG vehicles.

Mitigation Measure K.1-2: Adams Boulevard and Hoover Street – Restripe the eastbound and westbound approaches at this intersection to accommodate two left-turn only lanes on the eastbound approach. The ultimate configuration will be two left-turn lanes, one through lane, and one shared through/right-turn lane for the eastbound approach. This improvement, with any necessary traffic signal modifications, is acceptable to DOT and would mitigate the project's impact to a level of insignificance. However, this improvement should

be appropriately phased by the applicant and not implemented until merited by an increase in eastbound left-turn traffic volumes. This improvement would be guaranteed through the B-permit process but should not be installed until deemed warranted by DOT.

Mitigation Measure K.1-3: Jefferson Boulevard and Vermont Avenue – Restrict parking on the west side of Vermont Avenue during the p.m. peak hours between 30th Street and Exposition Boulevard, and restripe Vermont Avenue to provide one left-turn lane, two through lanes, and one shared through/right-turn lane for the southbound approach. Although this measure would mitigate the significant impact, it would result in the loss of on-street parking along Vermont Avenue. The Applicant has indicated that the loss of street parking could be mitigated by providing substitute parking at the USC-controlled public parking lot located at the southeast corner of this intersection. However, this improvement should not be conditioned on the project without consent from the affected Council Office and any impacted stakeholders. Therefore, without this final approval of this mitigation proposal, the impact at this intersection would remain significant.

Mitigation Measure K.1-4: Traffic Signal Upgrades. The Applicant shall provide funds to DOT for any necessary upgrades to the existing traffic signal equipment within the Project study area. These upgrades may include the installation of left-turn phasing, new traffic signal controllers, closed-circuit television (CCTV) cameras, vehicle detector loops, etc. The Applicant shall provide up to $400,000 to DOT to fund the cost of any necessary traffic signal upgrades. This fee would be required prior to the issuance of a certificate of occupancy for the Project's first building that is more than 50,000 sf.

Mitigation Measure K.1-5: Neighborhood Traffic Management. The Applicant shall conduct public outreach and develop a Neighborhood Traffic Management Plan, in consultation with DOT, the affected Council District office and the affected neighborhood. Coordination with the appropriate Council District office may be necessary to designate the stakeholders that should facilitate the public outreach. The Applicant shall also be responsible for conducting the engineering evaluation of the potential measures to determine the feasibility in regards to drainage, constructability, street design, etc. A preliminary Neighborhood Traffic Management Implementation Plan shall be prepared and provided for DOT review prior to the issuance of the first building permit for the proposed Project and a final Neighborhood Traffic Management Implementation Plan approved by DOT is required prior to the issuance of the first certificate of occupancy for the proposed Project. The Applicant shall be responsible for implementing any Neighborhood Traffic Management Plan measures approved by DOT and supported by stakeholders.

Prior to the outreach, a cost estimate on the potential Neighborhood Traffic Management Plan shall be determined in consultation with DOT but shall not exceed $50,000. The cost should be commensurate with the size of the proposed Project and with the level of residential street impacts that are expected. The development of the Neighborhood Traffic Management Plan shall include an analysis of traffic data and conditions of the impacted residential street segments identified in the study.

The Neighborhood Traffic Management Plan shall be phased and prioritized for implementation so that only non-restrictive traffic calming measures are implemented. Non-restrictive traffic calming measures may include, but are not limited to, traffic circles, speed humps, roadway narrowing effects (raised medians, traffic chokers, etc.), landscaping features, roadway striping changes, and stop sign pattern. The Neighborhood Traffic Management Plan shall also consider and evaluate neighborhood improvements that can offset the effects of added traffic, including street trees, sidewalks, landscaping, neighborhood identification features, and pedestrian amenities. Such measures can support trip reduction efforts by encouraging walking, bicycling, and the use of public transit. The Neighborhood Traffic Management Plan shall also consider and evaluate the following measures during public outreach: a requirement for the University to erect a physical barrier on Orchard Avenue north of the proposed access point to Subarea 3 each evening after 10:00 PM to prevent traffic from entering or leaving this part of Subarea 3 via the residential neighborhood to the north, and the retention of the general triangular configuration at McClintock Avenue and 30th Street. A temporary certificate of occupancy may be granted in the event of any delay through no fault of the Applicant, provided that, in each case, the applicant has demonstrated reasonable efforts and due diligence to the satisfaction of LADOT.

K.2 Parking

Mitigation Measure K.2-1: Prior to receipt of the first Certificate of Occupancy, the Applicant shall develop and implement an annual monitoring process that establishes the University population for each year and the corresponding calculation of parking demand using the rates within the Parking Study prepared for the proposed Project. The Applicant would be responsible for constructing and/or securing sufficient parking to satisfy the calculated demand prior to the issuance of certificate of occupancy permits for new Project uses.

L.3 Utilities – Solid Waste

a. Construction

Mitigation Measure L.3-1: The construction contractor shall only contract for waste disposal services with a company that recycles demolition and construction-related wastes. The contract specifying recycled waste service shall be presented to the Department of Building and Safety prior to issuance of demolition or construction permits.

Mitigation Measure L.3-2: To facilitate on-site separation and recycling of demolition and construction-related wastes, the construction contractor should provide temporary waste separation bins on-site during demolition and construction of the proposed Project.

b. Operation

Mitigation Measure L.3-3: Recycling bins shall be provided at appropriate locations on the Project site to promote recycling of paper, metal, glass, and other recyclable materials. Recycling areas or rooms for collecting and loading recyclable materials shall be provided in accordance with City of Los Angeles Municipal Code Section 12.21A19.