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**IV. ENVIRONMENTAL IMPACT ANALYSIS**  
**F. TRANSPORTATION/CIRCULATION**  
**1. TRAFFIC**

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This section is based upon the technical report, *L.A. Sports & Entertainment District EIR Traffic Study* prepared by The Mobility Group with Kaku Associates, dated December 2000, which analyzes the potential impact of the proposed Project on the surrounding street and freeway system. This study is presented in Appendix E of this Draft EIR.

**a. ENVIRONMENTAL SETTING**

**(1) Regional Roadway System**

The Project site is currently served by an extensive freeway network. Primary regional access to the study area is provided by the Santa Monica (I-10) and Harbor (I-110/SR-110) Freeways. The Santa Monica Freeway runs in an east-west direction south of the proposed Project, while the Harbor Freeway runs north-south along the Project's western boundary. These two freeways also provide access to the Hollywood (US-101), Pasadena (SR-110) and Golden State (I-5) Freeways to the north, to the San Bernardino (I-10) and Pomona (SR-60) Freeways to the east, and to the Santa Ana (I-5) Freeway to the southeast. The Project site is located within the downtown Los Angeles area where numerous freeway ramps to and from the Santa Monica and Harbor Freeways provide access for the Project area. On-ramps to the Santa Monica Freeway are located at Flower Street, Grand Avenue, and Los Angeles Street. Off-ramps from the Santa Monica Freeway serving the Project area are provided at Hoover Street, Pico Boulevard/Cherry Street, Grand Avenue, and Los Angeles Street. On-ramps to the Harbor Freeway are provided at 8<sup>th</sup> Street, Olympic Boulevard/11<sup>th</sup> Street, and Washington Boulevard. Harbor Freeway off-ramps are located at 9<sup>th</sup> Street (James Wood Boulevard), Olympic Boulevard/Blaine Street/11<sup>th</sup> Street, Pico Boulevard/Cherry Street, and Adams Boulevard.

**(2) Local Roadway System**

The local roadway system in the vicinity of the Project site forms a comprehensive grid system allowing for several options to access the area. Several of the streets function as one-way couplets, while others provide for two-way travel. The major north-south streets serving the Project study area include Figueroa Street, Flower Street (which function as a couplet), Hope Street, Grand Avenue, and Olive Street (which function as a couplet). The major east-west streets are 9<sup>th</sup> Street

(James Wood Boulevard), Olympic Boulevard, 11<sup>th</sup> Street, Pico Boulevard, Venice Boulevard, and Washington Boulevard.

The Project site would be directly served by Olympic Boulevard on the north, Pico Boulevard on the south, Figueroa, Flower and Hope Streets on the east, and Cherry Street on the west. Brief descriptions of these facilities are included below:

- Olympic Boulevard: Olympic Boulevard is a two-way street, which travels in an east-west direction providing six travel lanes in the vicinity of the Project. There are peak hour parking restrictions on both sides of the street
- 11<sup>th</sup> Street: 11<sup>th</sup> Street travels in an east-west direction. It is a two-way street between Cherry Street and Flower Street. Between Cherry Street and Figueroa Street, 11<sup>th</sup> Street is a five-lane street with two lanes eastbound and three lanes westbound. Between Figueroa Street and Flower Street, 11<sup>th</sup> Street is a four-lane street with two travel lanes in each direction. East of Flower Street, 11<sup>th</sup> Street is one-way westbound with three travel lanes, its eastbound counterpart is 12<sup>th</sup> Street.
- Pico Boulevard: Pico Boulevard is an east-west street providing a total of five travel lanes west of Figueroa Street (two westbound and three eastbound). East of Figueroa Street, Pico Boulevard narrows to provide two travel lanes in each direction.
- Figueroa Street: In the vicinity of the Project site, Figueroa is a two-way street, providing two southbound lanes and four northbound lanes. North of Olympic Boulevard, Figueroa Street is a one-way northbound street providing a total of four travel lanes. North of 9<sup>th</sup> Street (James Wood Boulevard), Figueroa Street widens to provide five northbound travel lanes.
- Flower Street: Flower Street is a one-way southbound street, providing four travel lanes in the vicinity of the Project site. The Metro Blue Line Pico Station is located on the east side of Flower Street, just north of Pico Boulevard.
- Hope Street. Hope Street is a two-way north-south street, providing two travel lanes and two parking lanes in the vicinity of the Project. Hope Street functions as a local distributor street.

### **(3) Event Center Circulation**

The Los Angeles Convention and Exhibition Center is located adjacent to the Project site. General access to the Convention Center is provided by the same freeway and roadway facilities

discussed above. The Convention Center provides parking in several off-street parking areas. Parking garages are located at the South Hall, West Hall, Cherry Street Garage, and Venice Garage. Access to the South Hall parking area is generally provided off of Venice Boulevard, while the West Hall is accessed via Cherry Street and 11<sup>th</sup> Street, as well as from Pico Boulevard. The Cherry Street Garage is accessed from Cherry Street and the Venice Garage from Venice Boulevard.

The Convention Center has developed a sophisticated system to guide traffic circulation on the public streets around the Convention Center site. This system has two basic components: one relating to patrons traveling to event parking in private automobiles; and one oriented towards taxicabs and shuttle busses. The circulation system established for patron vehicles is based on a clockwise rotation pattern around the Convention Center, which emphasizes right-hand turns into parking facilities and discourages unsignalized left-hand turning movements. Off-street access for taxicabs and shuttle busses is provided at Gilbert Lindsay Plaza (south of STAPLES Center), and along the south side of Pico Boulevard, between Cherry and Figueroa Streets.

STAPLES Center is also located adjacent to the Project site, with general access being provided by the same freeway and roadway system discussed above. During its first year of operation, STAPLES Center provided off-street parking at 28 separate parking locations that supplied approximately 6,000 parking spaces. Several of these lots are no longer provided due to lack of use or demand. Currently, STAPLES Center provides parking in 16 separate off-street lots supplying approximately 5,615 spaces. These include designated lots for premium ticket holders and for the general public.

The *South Park Event Parking and Circulation Management Plan (PCMP)* was implemented prior to the opening of STAPLES Center to coordinate mobility and parking in the South Park area of downtown Los Angeles, including STAPLES Center, the Convention Center, and nearby office, commercial, and residential uses. The *PCMP* was prepared under the direction of the City of Los Angeles Department of Transportation (LADOT), and in coordination with various other groups, including the CRA, Caltrans, and the Convention Center. Under the *PCMP*, the City of Los Angeles has installed certain traffic control improvements, in addition to a variety of transportation improvement measures that were recently installed in the South Park area as part of the mitigation measures required for construction of STAPLES Center. Together, these improvements include the following:

- New and upgraded closed-circuit television cameras to monitor traffic activity;
- Upgraded computerized traffic signal controls, including the LADOT Adaptive Traffic Control System (ATCS), which adjusts signal timing in response to actual traffic volumes;

- Street widening and conversion of key street segments to two-way operation that enhance access/egress;
- Installation of eight Changeable Message Signs (CMS) to advise drivers of traffic conditions, alternate routes, and parking locations;
- Installation of inbound guide signs to direct motorists to parking locations;
- Installation of outbound guide signs to direct motorists back to freeways;
- Installation of a Highway Advisory Radio System to provide ongoing information to motorists about access/egress routes, parking, and traffic conditions;
- Provision of on-site control staff at key locations during events to keep traffic moving smoothly; and
- Provision of a South Park Traffic Management Center to operate and coordinate the changeable message signs, highway advisory radio, traffic signal controls, and on-site traffic control staff.

The *PCMP* establishes expected activity levels for STAPLES Center and the Convention Center within five categories, or “event levels.” These levels range from Level 1, representing the smallest crowd at either facility, to Level 5, representing the largest concurrent combined-venue crowds. Detailed plans for traffic and parking management have been prepared and are routinely implemented for Levels 3 through 5 events. The process includes monthly event management meetings among all affected facilities and involved agencies to discuss and plan for managing upcoming events.

#### **(4) Existing Traffic Volumes and Levels of Service**

In conjunction with LADOT, a total of 40 intersections were identified for analysis of traffic conditions. The locations of the analyzed intersections are shown in Figure 36 on page 237, and correspond to the locations where traffic impacts from the proposed Project are most likely to occur.

At the direction of LADOT, traffic analysis was conducted for the weekday P.M. peak hour (approximately 5:00 P.M. to 6:00 P.M.), and for the Saturday evening hour (7:00 P.M. to 8:00 P.M.). These two time periods were selected as being the most likely to receive the highest total traffic impacts from the proposed Project, thus these periods would provide the most conservative (i.e., worst case) analysis. The weekday P.M. peak hour is typically the heaviest traffic period of all and includes commuter traffic from downtown employment. The Saturday evening peak hour typically

**Figure 36      Intersection Analysis Locations**

includes vehicle trips associated with entertainment and sporting events held at STAPLES Center and/or events held at the Convention Center. Further, the Saturday peak hour was chosen due to the assumed peaking characteristics of the planned entertainment uses associated with the proposed Project. Traffic counts were conducted to coincide with a “Level 4” event scenario as defined in the *PCMP* (i.e., a major event simultaneously held at STAPLES Center and the Convention Center) to ensure that the traffic analysis adequately reflected a high activity period in the Project study area.

Weekday and Saturday peak period traffic counts were conducted at all 40 analyzed intersections. The weekday counts were conducted on Thursday, December 16, 1999 from 4:00 P.M. to 7:00 P.M. The Saturday peak period counts were conducted on Saturday, January 8, 2000 from 5:00 P.M. to 8:00 P.M. The study of traffic impacts was conducted for the weekday P.M. peak hour and for the Saturday evening peak hour because those are the times when the trips from the component land uses of the project and trips on the roadway system (including downtown commuting, STAPLES Center, and the Convention Center) combine to create the highest traffic volume. It should be noted that on both count days there was an event scheduled in both STAPLES Center and the Convention Center. The Saturday count included the activity associated with the Greater Los Angeles Auto Show and a Los Angeles Clippers basketball game. Therefore, the existing counts include high activity levels at both STAPLES Center and the Convention Center.

Level of Service (LOS) is a qualitative measure used to describe the condition of traffic flow, ranging from excellent conditions at LOS A to overloaded conditions at LOS F. LOS E and F indicate poor operation of significant delays at intersections. LOS D is typically recognized by transportation officials as the minimum satisfactory service level in urban areas. The *Critical Movement Analysis-Planning* (Transportation Research Board, 1980) method of intersection capacity analysis was used to determine the intersection volume-to-capacity (V/C) ratio and the corresponding LOS for turning movements and intersection characteristics at the 40 analyzed intersections. Table 31 on page 239 defines the ranges of V/C ratios and their corresponding LOS for signalized intersections.

With the exception of two intersections (Cherry Street/Olympic Boulevard, and Francisco Avenue/Olympic Boulevard), all the analyzed intersections are signalized. For purposes of analysis, all Project-related intersections were treated as signalized intersections. All signalized intersections being studied are incorporated in both the LADOT Automated Traffic Surveillance and Control (ATSAC) and Adaptive Traffic Control System (ATCS) signal systems covering the study area. In accordance with LADOT procedures, capacity values at intersections included in the ATSAC and ATCS systems were increased by a total of 10 percent to reflect the estimated beneficial effect of ATSAC and ATCS on the transportation system.

Table 33 on page 240 summarizes the existing weekday P.M. peak hour and Saturday peak hour V/C ratios and corresponding levels of service at the 40 analyzed intersections. As shown, all

Table 31

## INTERSECTION LEVEL OF SERVICE DEFINITIONS

| Level of Service | Interpretation                                                                                                                                                                                                                                                                        | Volume/<br>Capacity (V/C) |
|------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------|
| A                | Excellent operation. All approaches to the intersection appear quite open, turning movements are easily made, and nearly all drivers find freedom of operation.                                                                                                                       | < 0.600                   |
| B                | Very good operation. Many drivers begin to feel somewhat restricted within platoons of vehicles. This represents stable flow. An approach to an intersection may occasionally be fully utilized and traffic queues start to form.                                                     | 0.601 - 0.700             |
| C                | Good operation. Occasionally drivers may have to wait for more than 60 seconds, and backups may develop behind turning vehicles. Most drivers feel somewhat restricted.                                                                                                               | 0.701 - 0.800             |
| D                | Fair operation. Cars are sometimes required to wait for more than 60 seconds during short peaks. There are no long-standing traffic queues. This level is typically associated with design practice for peak periods.                                                                 | 0.801 - 0.900             |
| E                | Poor operation. Some long-standing vehicular queues develop on critical approaches to intersections. Delays may be up to several minutes.                                                                                                                                             | 0.901 - 1.000             |
| F                | Forced flow. Represents jammed conditions. Backups from locations downstream or on the cross street may restrict or prevent movement of vehicles out of the intersection approach lanes; therefore, volumes carried are not predictable. Potential for stop-and-go type traffic flow. | > 1.000                   |

Source: *Highway Capacity Manual*, Transportation Research Board, Washington, D.C., 1985 and *Interim Materials on Highway Capacity*, MCHRP Circular No. 212, 1982.

of the analyzed intersections are currently operating at satisfactory levels of service (i.e., LOS D or better) during the weekday P.M. peak hour and during the Saturday peak hour. Many intersections are operating at LOS A or LOS B in both peak hours, indicating no traffic congestion or problems. The only intersection operating at LOS D is at Cherry Street and Pico Boulevard, which operates at LOS D in both the weekday P.M. peak hour and Saturday peak hour.

### (5) Existing Transit Service

The traffic analysis study area is currently served by a number of local and inter-city transit operations, including the DASH downtown shuttle operated by LADOT, local buses operated by the Los Angeles County Metropolitan Transportation Authority (MTA) and others, and the Metro Blue Line rail transit system, also operated by MTA. In addition, taxi service is available throughout the Project area.

Table 33

## EXISTING CONDITIONS –INTERSECTION LEVEL OF SERVICE

| No. | Intersection                                                              | Weekday P.M.<br>Peak Hour |     | Saturday<br>P.M. Peak Hour |     |
|-----|---------------------------------------------------------------------------|---------------------------|-----|----------------------------|-----|
|     |                                                                           | V/C                       | LOS | V/C                        | LOS |
| 1.  | Blaine Street and Olympic Boulevard                                       | 0.683                     | B   | 0.490                      | A   |
| 2.  | Blaine Street and I-110 SB off-ramp                                       | 0.294                     | A   | 0.377                      | A   |
| 3.  | Blaine Street and 11 <sup>th</sup> Street                                 | 0.739                     | C   | 0.551                      | A   |
| 4.  | Cherry Street and Olympic Boulevard                                       | 0.405                     | A   | 0.272                      | A   |
| 5.  | Cherry Street and I-110 NB on-ramp/11 <sup>th</sup> Street                | 0.458                     | A   | 0.650                      | B   |
| 6.  | Cherry Street and Pico Boulevard                                          | 0.864                     | D   | 0.811                      | D   |
| 7.  | Georgia Street and 9 <sup>th</sup> Street (James Wood Boulevard)          | 0.401                     | A   | 0.446                      | A   |
| 8.  | Georgia Street and Olympic Boulevard                                      | 0.586                     | A   | 0.549                      | A   |
| 9.  | Georgia Street and 11 <sup>th</sup> Street                                | 0.330                     | A   | 0.440                      | A   |
| 10. | Francisco Street and 9 <sup>th</sup> Street (James Wood Boulevard) (East) | 0.382                     | A   | 0.269                      | A   |
| 11. | Francisco Street and Olympic Boulevard                                    | 0.377                     | A   | 0.550                      | A   |
| 12. | Figueroa Street and 8 <sup>th</sup> Street                                | 0.618                     | B   | 0.273                      | A   |
| 13. | Figueroa Street and 9 <sup>th</sup> Street (James Wood Boulevard)         | 0.551                     | A   | 0.364                      | A   |
| 14. | Figueroa Street and Olympic Boulevard                                     | 0.662                     | B   | 0.500                      | A   |
| 15. | Figueroa Street and 11 <sup>th</sup> Street                               | 0.692                     | B   | 0.556                      | A   |
| 16. | Figueroa Street and 12 <sup>th</sup> Street (North)                       | 0.378                     | A   | 0.368                      | A   |
| 17. | Figueroa Street and 12 <sup>th</sup> Street (South)                       | 0.355                     | A   | 0.265                      | A   |
| 18. | Figueroa Street and Pico Boulevard                                        | 0.628                     | B   | 0.522                      | A   |
| 19. | Flower Street and 9 <sup>th</sup> Street (James Wood Boulevard)           | 0.430                     | A   | 0.532                      | A   |
| 20. | Flower Street and Olympic Boulevard                                       | 0.642                     | B   | 0.490                      | A   |
| 21. | Flower Street and 11 <sup>th</sup> Street                                 | 0.527                     | A   | 0.499                      | A   |
| 22. | Flower Street and 12 <sup>th</sup> Street                                 | 0.437                     | A   | 0.232                      | A   |
| 23. | Flower Street and Pico Boulevard                                          | 0.697                     | B   | 0.457                      | A   |
| 24. | Hope Street and 11 <sup>th</sup> Street                                   | 0.473                     | A   | 0.267                      | A   |
| 25. | Hope Street and 12 <sup>th</sup> Street                                   | 0.204                     | A   | 0.127                      | A   |
| 26. | Hope Street and Pico Boulevard                                            | 0.428                     | A   | 0.299                      | A   |
| 27. | Grand Avenue and 17 <sup>th</sup> Street                                  | 0.578                     | A   | 0.368                      | A   |
| 28. | Grand Avenue and 18 <sup>th</sup> Street                                  | 0.365                     | A   | 0.379                      | A   |
| 29. | Los Angeles Street and I-10 WB off-ramp                                   | 0.520                     | A   | 0.378                      | A   |
| 30. | Figueroa Street and 7 <sup>th</sup> Street                                | 0.641                     | B   | 0.296                      | A   |
| 31. | Flower Street and 7 <sup>th</sup> Street                                  | 0.694                     | B   | 0.238                      | A   |
| 32. | Flower Street and 8 <sup>th</sup> Street                                  | 0.570                     | A   | 0.221                      | A   |
| 33. | Hope Street and 9 <sup>th</sup> Street (James Wood Boulevard)             | 0.378                     | A   | 0.102                      | A   |
| 34. | Hope Street and Olympic Boulevard                                         | 0.468                     | A   | 0.208                      | A   |
| 35. | Grand Avenue and 9 <sup>th</sup> Street (James Wood Boulevard)            | 0.424                     | A   | 0.115                      | A   |
| 36. | Grand Avenue and Olympic Boulevard                                        | 0.533                     | A   | 0.280                      | A   |
| 37. | Grand Avenue and 11 <sup>th</sup> Street                                  | 0.512                     | A   | 0.118                      | A   |
| 38. | Olive Street and 9 <sup>th</sup> Street (James Wood Boulevard)            | 0.388                     | A   | 0.128                      | A   |
| 39. | Olive Street and Olympic Boulevard                                        | 0.473                     | A   | 0.246                      | A   |
| 40. | Olive Street and 11 <sup>th</sup> Street                                  | 0.421                     | A   | 0.096                      | A   |

Source: The Mobility Group/Kaku Associates, December 2000.

The major streets in the Project area provide transit access between downtown Los Angeles and surrounding communities. Frequent peak hour transit service reaches a variety of destinations both within and outside this study area. MTA operates 38 local and limited stop Metro Bus routes within about three-quarters mile of the Project site. In the afternoon peak hour, approximately 307 runs are made. Most routes have average service intervals of five to 20 minutes.

In addition to the bus service, the MTA also operates the Metro Blue Line rail system, which travels between downtown Los Angeles and downtown Long Beach. The Blue Line travels at-grade for the majority of its alignment, transitioning to subterranean between 11<sup>th</sup> and 12<sup>th</sup> Street and continuing underground into the CBD. Transfer to the Metro Red Line is also available at the 7<sup>th</sup> Street Metro Center. In the vicinity of the Project, there is an at-grade Blue Line station on Flower Street north of Pico Boulevard (the Pico/Convention Center Station). The Pico Station is also served by Metro Bus lines 30, 31, 56, 70, 81, 427, 434, 436, 439, 442, 444, 445, 446, 447, and DASH Route A.

The Blue Line provides service seven days a week operating from approximately 4:00 A.M. to 12:00 midnight on the weekdays. Service is provided in five to 20 minute intervals. Between 4:00 and 6:30 P.M. the Blue Line operates every five to eight minutes on weekdays. After 8:00 P.M., service is provided every 20 minutes. On weekends, the Blue Line operates every 12 to 20 minutes. The last Blue Line train to leave the Pico station in the northbound direction is at 11:34 P.M. and at 11:47 P.M. in the southbound direction.

The City of Los Angeles runs a downtown shuttle service, the DASH Bus System, that serves the Figueroa Corridor. The two DASH lines that service the Project area are Route A and Route F. The DASH system primarily operates during the weekday, however, there is a weekend service, which covers the majority of the downtown area.

Route A extends from Little Tokyo and the Civic Center area, northeast of the Project site, to Pico Boulevard via 1<sup>st</sup> Street and the Figueroa Corridor. Service is provided on that route every five minutes from 6:30 A.M. to 6:30 P.M. Near the Project site, Route A has stops at Figueroa Street/Olympic Boulevard (northbound), Flower Street/Olympic Boulevard (southbound), Figueroa Street/12<sup>th</sup> Street (north-bound), Flower Street/12<sup>th</sup> Street (southbound), Figueroa Street/Pico Boulevard (northbound), and Flower Street/Pico Boulevard (southbound).

Route F runs between the western portion of the Financial District and the Exposition Park area near the University of Southern California, southwest of the Project site. This route is also focused in the Figueroa Corridor, and provides service every 15 minutes from 6:30 A.M. to 6:30 P.M. Route F also operates on weekends. Stops on Route F are located at Figueroa Street/Olympic Boulevard (northbound), Flower Street/Olympic Boulevard (southbound), Figueroa Street/12<sup>th</sup>

Street (both northbound and southbound), Figueroa Street/Pico Boulevard (both northbound and southbound), and Figueroa Street/Venice Boulevard (both northbound and southbound).

In addition to the DASH Bus System, other shuttle buses that are privately operated also connect certain downtown businesses and restaurants to STAPLES Center, enabling these customers to park at their office or dinner destinations and then take the shuttle buses to STAPLES Center.

## **(6) Transportation Plans**

The *SCAG Regional Transportation Plan (RTP)* sets out the long-range transportation policy and infrastructure improvement program for the Southern California region. It was adopted in 1998 and is currently being updated although no new draft plan has yet been released. The *RTP* identifies long-range improvements for all transportation modes, including highway, transit, HOV and truck facilities. No major infrastructure improvements are identified in the specific area of the Project. No major mixed flow, arterial, HOV/HOT facility improvements are planned in the general area of the Project. A number of planned transit corridors will enhance transit service to the downtown area, including increases in Metrolink commuter rail service, the Blue Line LRT to Pasadena, the East Los Angeles Rail Corridor, and the Wilshire Corridor and Exposition Corridor Busways. The Alameda Corridor project (currently under construction) will significantly enhance rail freight travel from the Los Angeles/Long Beach ports to southeast of downtown, with an expected decrease in truck movements in the Corridor. One of the *RTP* policies most relevant to this Project is the goal of Livable Communities to reduce auto travel, and to support pedestrian and transit-oriented mixed use development, which the design of this Project will accomplish.

The *City of Los Angeles General Plan Transportation Element (GPTE)* defines the long-range transportation plan for the City. In the area of the Project, the *GPTE* identifies Figueroa Street, Olympic Boulevard, and Grand Avenue as Major Highways (Class II), and Flower Street, Hope Street, Olive Street, Pico Boulevard, Venice Boulevard, 8<sup>th</sup> Street, 9<sup>th</sup> Street, and parts of Albany Street and Blaine Street as Secondary Highways. A commuter bikeway is shown on the *GPTE* for Pico Boulevard and Olympic Boulevard is designated as a Transit Priority Street in the area of the Project. Relevant transportation policies in the *GPTE* include an increase in transit service and facilities; the promotion of TDM/non-auto programs; the implementation of Transportation System Management (TSM) strategies; and supporting development in regional centers, like downtown, and along mixed land use boulevards, such as Olympic and Figueroa Boulevards.

The *Central City Community Plan (Community Plan)* is currently being revised and is in draft review stage. The *Community Plan* defines a broad range of transportation policies and long term potential transportation improvements for the Downtown. Few of the improvements are specific to the area of the Project, although some that could affect it are as follows. The *Community*

*Plan* identifies some general arterial corridor improvements, including: (a) improving the capacity of key arterial streets between the Hollywood Freeway and the Santa Monica Freeway, with compatible traffic management technologies, and (b) adding HOV lanes in arterial access corridors to the CBD or arterials within the CBD. Potential candidates include 8<sup>th</sup>/9<sup>th</sup> Streets, and Olive Street/Grand Avenue in the vicinity of the Project. The *Community Plan* calls for an internal transit circulation system, similar to the *Downtown Los Angeles Strategic Plan* (see below), and enhancements to pedestrian circulation. The *Community Plan* identifies the Convention Center/Arena sphere of influence as a Special Study Area with the potential for the (STAPLES) Arena to positively impact development in the area serviced by mass transit that would be able to encourage pedestrian orientation and multiple trip entertainment and restaurant uses associated with the Convention Center and STAPLES Center. The *Community Plan* also proposes continuing to limit on-site parking for office buildings greater than 100,000 square feet in the affected Traffic Impact Zone north of Olympic Boulevard in the area of the Project, to a maximum of 0.6 parking space per 1,000 square feet with 0.4 space per 1,000 square feet either being provided off-site or substituted by a Transportation Demand Management (TDM) program.

The *Downtown Los Angeles Strategic Plan (DSP)*, completed in 1994, lays out a long-range plan for the downtown area. A number of specific transportation recommendations are made in the area of the Project, including the following. The *DSP* identifies Figueroa Street, Flower Street, Grand Avenue, Olympic Boulevard, 11<sup>th</sup> Street, and Pico Boulevard as Mixed Flow Streets. The *DSP* further identifies Transit Priority Streets on 7<sup>th</sup>, 8<sup>th</sup>, 9<sup>th</sup> Streets and Olive Street, and Regional Bus Access Streets on Figueroa Street, 8<sup>th</sup> Street, 9<sup>th</sup> Street, and Wilshire Boulevard, and it identifies Olympic Boulevard, 11<sup>th</sup> Street, and Olive Street as Avenidas in the Plan. The *DSP* also recommends an internal transit circulator system, utilizing buses, to connect the Convention Center area to the Financial District, Broadway, the Civic Center, Union Station and Chinatown. In the area of the Project, the routes proposed for this circulator service included Figueroa Street, Olympic Boulevard, Pico Boulevard, and Grand Avenue.

## **b. PROJECT IMPACT**

### **(1) Significance Thresholds**

#### **(a) Intersection Analysis**

The LADOT has established threshold criteria that are used to determine if a project has a significant traffic impact at a specific location. A project impact is considered significant if the following conditions are met as shown in Table 35 on page 244. Using these LADOT criteria, for example, a project would not have a significant impact at an intersection if it is operating at LOS C after the addition of project traffic and the incremental change in the V/C ratio is less than 0.040. However, if the intersection is operating at LOS F after the addition of project traffic and the

Table 35

## SIGNIFICANT IMPACT THRESHOLDS – INTERSECTION CONDITION

| With Project Traffic |               | Project-Related Increase in V/C Ratio |
|----------------------|---------------|---------------------------------------|
| LOS                  | V/C Ratio     |                                       |
| C                    | 0.701 – 0.800 | Equal to or greater than 0.040        |
| D                    | 0.801 – 0.900 | Equal to or greater than 0.020        |
| E, F                 | >0.900        | Equal to or greater than 0.010        |

Source: *The Mobility Group/Kaku Associates, December 2000.*

incremental change in the V/C ratio is 0.010 or greater, the project would be considered to have a significant impact at that intersection.

### (b) CMP Freeway and Arterial Analysis

As per the standards of significance presented in the *Los Angeles Congestion Management Program (CMP)*, a significant impact would occur if:

- The Project increases traffic demand on a CMP arterial facility by two percent of capacity ( $V/C \geq 0.020$ ) causing, or worsening, the location to operate at LOS F ( $V/C \geq 1.000$ ); or
- The Project increases traffic demand on a CMP freeway section such that the demand to capacity (D/C) ratio increases by two percent or more ( $D/C \geq 0.02$ ).

## (2) Methodology

### (a) Intersection Analysis

#### (i) Trip Generation

The number of vehicle trips expected to be generated by the Project was estimated for each of the two time periods being analyzed. Trip generation rates/equations from the Institute of Transportation Engineers, *Trip Generation – 6<sup>th</sup> Edition*, a standard source for trip rate information, were utilized to estimate the number of the vehicle trips from the new development uses. Certain adjustments were made to the trip generation estimates in order to more accurately reflect the specific conditions at the Project site and in the downtown Los Angeles area. The Project site is in the CBD, and immediately adjacent to STAPLES Center and the Convention Center, which would

lead to a significant number of trips to the Project coming from these adjacent uses and the downtown area in general. This, along with the high level of transit service to the site, would result in significantly less new vehicular trips being generated by the Project than would typically be the case, thereby reducing effects on the regional roadway system.

A number of visitors to the Project site would already be in the area because they would be visiting either STAPLES Center or the Convention Center. These would be people attending an event at STAPLES Center, or attending an event at the Convention Center and/or staying in the proposed Convention Center hotel. These people would not be expected to generate new vehicle trips by visiting Project uses, but would walk to those uses, having already parked their cars. Based on a review of events and activities typically scheduled at these facilities, as well as preliminary market analysis, the following interactions with the Project were estimated:

- Approximately 12 percent of visitors to the Project's restaurant and retail uses would already be in the area visiting STAPLES Center and/or the Convention Center;
- Approximately 10 percent of visitors to the entertainment uses and 20 percent of visitors to the restaurant and retail uses would already be in the area visiting the Convention Center; and
- Approximately 40 percent of the trips to/from the Project's hotel would be associated with the Convention Center.

Trip rates were adjusted to allow for internal capture within the Project, and reflect the synergy that occurs among the different Project land uses in a mixed-used development. This would include people who visit the Project site for multiple purposes, such as eating at a restaurant and shopping at the retail uses; people staying in the hotel and eating at a restaurant and/or shopping or using the health club; or people who work at the office uses and also visit other uses on the Project site during the day and night. In order to adequately reflect these multiple visits generated from one vehicle trip to the site, trip rates were reduced by five to 10 percent for office, retail, health club and residential uses, and by 15 to 20 percent for hotel and restaurant uses.

Trip generation rates were also adjusted to reflect the fact that the Project site is adjacent to downtown rail and bus transit service. Given the high level of transit service, and based upon past and current transit use in the downtown area, trip generation rates were reduced by five to 10 percent for restaurant, theater, retail, health club, and residential uses, and by 15 to 20 percent for hotel (including shuttle/tour buses) and office uses, to account for use of transit to the Project. In addition, due to the proximity of the Project within walking distance of many downtown land uses (i.e., office and residential buildings), it was assumed that five to 10 percent of trips to the hotel, restaurant, retail, health club, office, and residential uses would walk to the Project site from the surrounding area.

The trip rates were also adjusted to reflect pass-by trips, which are trips that are already on the street system that are passing by the Project but would now divert into the Project to visit one or more of the uses. LADOT standards used in estimating pass-by trips and pass-by reductions were applied at 10 percent for restaurant, 20 percent for health club, and 20 to 30 percent for retail uses. No pass-by reductions were made for the office, hotel, theater, entertainment, and residential uses on the site.

It is estimated that the Project would generate approximately 3,610 vehicle trips in the weekday P.M. peak hour (1,880 inbound and 1,730 outbound), and approximately 5,180 vehicle trips in the Saturday evening peak hour (3,585 inbound and 1,595 outbound) as shown in Table 37 on page 247.

### **(ii) Project Trip Distribution**

The distribution of Project trips determines which streets the Project traffic would use to get to and from the Project. The distribution pattern assumed for the Project is shown on Figure 37 on page 248. This pattern was based upon a number of factors, including the types of Project land uses; the types, characteristics, and connectivity of individual streets in the study area; and the likely origins and destinations of Project visitors. The estimated trip distribution was also based on resources, such as trip distribution information available in the CMP and from regional population data, and consideration of the market area for the Project land uses.

The trip distribution takes into account regional access via the freeway system and principal arterials, as well as local access via the surrounding roadway system, including the fact that a significant number of trips are expected to come from the downtown area due to its proximity to the Project.

### **(iii) Project Trip Assignment**

Project-generated trips were assigned to the roadway network based on the trip distribution parameters identified above, as well as a number of other factors, *PCMP* and current traffic access patterns for STAPLES Center. Project traffic is expected to access the site via major arterial roadways in the area. Project-generated traffic is not expected to utilize 11<sup>th</sup> Street and 12<sup>th</sup> Street west of the Harbor Freeway, nor other streets in the adjacent residential neighborhoods, as the experience to date with STAPLES Center has shown that event-related traffic does not utilize those streets.

As the Project would extend over six blocks, with different uses being located on each block, and with different levels of parking supply on each block, the destination of vehicle trips to the Project site would be determined more by the location of parking than by the location of the actual

Table 37

## PROPOSED PROJECT TRIP GENERATION

| Land Use           | Quantity | Units | Weekday P.M. Peak Hour |              |              | Saturday Peak Hour |              |              |
|--------------------|----------|-------|------------------------|--------------|--------------|--------------------|--------------|--------------|
|                    |          |       | Inbound                | Outbound     | Total        | Inbound            | Outbound     | Total        |
| Hotel              | 1,800    | Rooms | 277                    | 245          | 522          | 292                | 259          | 550          |
| Theater            | 7,000    | Seats | 63                     | 63           | 126          | 1,140              | 60           | 1,200        |
| Entertainment      | 195,000  | GSF   | 121                    | 71           | 193          | 917                | 496          | 1,414        |
| Restaurant         | 265,000  | GSF   | 586                    | 289          | 875          | 850                | 418          | 1,268        |
| Retail             | 385,000  | GSF   | 373                    | 404          | 777          | 140                | 129          | 269          |
| Health Club        | 125,000  | GSF   | 212                    | 136          | 348          | 106                | 68           | 174          |
| Office             | 165,000  | GSF   | 40                     | 198          | 238          | 8                  | 37           | 45           |
| Medical            | 135,000  | GSF   | 93                     | 250          | 343          | 12                 | 32           | 43           |
| Office             |          |       |                        |              |              |                    |              |              |
| Residential        | 800      | d.u.  | <u>116</u>             | <u>74</u>    | <u>190</u>   | <u>124</u>         | <u>93</u>    | <u>217</u>   |
| <b>Total Trips</b> |          |       | <b>1,881</b>           | <b>1,731</b> | <b>3,612</b> | <b>3,588</b>       | <b>1,593</b> | <b>5,181</b> |

GSF = gross square feet

d.u. = dwelling unit

Source: The Mobility Group/Kaku Associates, December 2000.

land use. While many people would park in the same block as their destination, many others may park in a different block and walk one or two blocks to their destination, or park off-site and walk into the Project site. Project-generated trips were thus distributed to individual blocks on the Project site based on parking supply. In addition, it is expected some trips to the Project site would park off-site. Virtually all employee parking would occur off-site and that, depending on the time of day/evening, a portion of visitor trips would also park off-site. This is consistent with a key Project goal of dispersing Project-related parking on-site and at convenient off-site locations to minimize congestion and emphasize pedestrian linkages between adjacent areas.

It is estimated that approximately 10 percent of trips during the weekday P.M. peak hour would park off-site and about 25 percent of trips during the Saturday evening peak hour would park off-site. These trips were thus assigned to off-site destinations generally within two or three blocks to the north (Figueroa Corridor), northeast, and east (9<sup>th</sup> Street/Olympic Boulevard Corridor) of the Project site, to reflect this off-site parking.

Finally, the trip assignment process took into account the fact that the Project is eliminating certain existing surface parking lots that serve STAPLES Center. Approximately two-thirds of the parking accommodated at these surface parking lots would be relocated within the Project. For the purpose of this analysis, the existing trips to these surface lots were first estimated, then subtracted

**Figure 37      Project Trip Distribution**

from the roadway system, and finally added back to the roadway system, based on anticipated new destinations. This process was accomplished as follows:

- The number of parking spaces in each of these lots represents the maximum number of inbound trips that occurs for an event.
- The number of trips entering during the weekday evening peak (5:00 P.M. to 6:00 P.M.) and Saturday evening peak (7:00 P.M. to 8:00 P.M.) was then estimated using the time of arrival profiles from the *Los Angeles Sports and Entertainment Complex Draft EIR*,<sup>38</sup> which indicated that five percent of event traffic arrives between 5:00 P.M. to 6:00 P.M. and 50 percent arrives between 7:00 P.M. to 8:00 P.M.
- These trips were then subtracted from the roadway network using the trip distribution identified in the *Los Angeles Sports and Entertainment Complex Draft EIR*.<sup>39</sup>
- The majority of these trips were then reassigned to the proposed parking structure on the Olympic West properties that will accommodate 2,200 STAPLES Center parking spaces.
- The residual amount were then assigned to destinations within two or three blocks to the north, northeast, and east of STAPLES Center, representing parking in other STAPLES Center and public parking lots.

#### **(b) CMP Freeway and Arterial Analysis**

The *Los Angeles County Congestion Management Plan (CMP)* requires new development projects to analyze potential project impacts on *CMP* monitoring locations. The freeway and arterial analysis was undertaken in accordance with the *CMP* requirements. The *CMP* requires that the traffic study analyze traffic conditions at all *CMP* arterial monitoring intersections where the proposed project would add 50 or more trips during either the A.M. or P.M. weekday peak hours of adjacent street traffic. The *CMP* also requires traffic studies to analyze mainline freeway monitoring locations where the project would add 150 or more trips in either direction during either A.M. or P.M. weekday peak hours.

<sup>38</sup> Los Angeles Community Redevelopment Agency, *Los Angeles Sports and Entertainment Complex Draft EIR*, PCR Services Corporation, March 1997.

<sup>39</sup> *Ibid.*

### **(3) Project Design Features**

#### **(a) Access and Circulation**

The principal vehicular circulation to access/egress the Project would take place via the surrounding public street system. There would be no internal surface-level vehicular circulation, with one exception: a private street looping through the northwest corner of the Olympic East Properties from Francisco Street to Georgia Street, which would serve as passenger drop-off and loading for taxis, shuttle busses, and other private/tour busses, and to create an intimate urban retail setting. Otherwise, vehicular circulation would occur via the public street system to parking garages that would be integrated throughout the Project to serve the various land uses.

The Project site is well served by regional freeways from four directions as described above. Fourteen freeway on- and off-ramps connect the Project site to the surface street system. The Project site is also served by a comprehensive grid system of surface streets comprising five major north-south streets, five major east-west streets, and four secondary streets. The principal access routes to the Project site are expected to be Olympic Boulevard from the west (as well as 8<sup>th</sup> Street and Pico Boulevard); Figueroa Street, Flower Street, Hope Street, Grand Avenue and Olive Street from the north and south; and Olympic Boulevard, 11<sup>th</sup> Street, 12<sup>th</sup> Street, and Pico Boulevard from the east.

Driveway access is proposed for parking for each Project block/property, as shown in Figure 39 on page 251. For the Olympic West properties, access/egress would be provided on Cherry Street (right-in, right-out only), on Olympic Boulevard (right-in, right-out only), and on Georgia Street (full movement access). For the Olympic East properties, access/egress would be provided on Olympic Boulevard opposite Francisco Street (full movement access), and on Georgia Street (full movement access). For the Olympic North properties, access/egress would occur on both Georgia Street and Francisco Street (both full movement access).

For the Figueroa North properties, access/egress would occur on both Figueroa Street and Flower Street (both right-in, right-out only). For the Figueroa Central properties, access/egress would be provided at 11<sup>th</sup> Street, Flower Street, and 12<sup>th</sup> Street (all right-in, right-out only). For the Figueroa South properties, access/egress would be provided on both Figueroa Street and Flower Street (both right-in, right-out only).

These access locations have been identified to facilitate vehicular access to the Project from the main surface streets, and to minimize conflicts with pedestrians. For example, vehicular access to the Olympic East properties would not be provided from 11<sup>th</sup> Street or from Figueroa Street, so that the high pedestrian volumes on these block faces would not be disrupted. Similarly, no

**Figure 39      Project Access/Egress**

vehicular access would be provided to the Figueroa Central properties from Figueroa Street, so that the anticipated high volumes of pedestrian crossings would not be disrupted.

### **(b) Roadway System**

Two changes to the existing roadway system are proposed as part of the Project. First, in order to enhance pedestrian circulation and safety, the curb-to-curb width of 11<sup>th</sup> Street, between Figueroa and Georgia Streets, would be reduced in width from 92 feet to 70 feet midblock and from 83 feet to 67 feet on Figueroa Street. The existing generally four-lane configuration with left turn lanes and the eastbound loading zone at STAPLES Center would be retained, but the narrower street section would facilitate pedestrian crossings and create a more suitable pedestrian-oriented environment. In addition, the Project envisions that, at times, 11<sup>th</sup> Street would be closed to the public between Figueroa and Georgia Streets to facilitate safe pedestrian flow and to enhance the pedestrian environment. Closure of this portion of 11<sup>th</sup> Street currently occurs during major events at STAPLES Center. These closures would be extended to start earlier in the evening, on weekends, and occasionally during midday, as required to accommodate event scheduling. During the morning and evening peak commute periods, 11<sup>th</sup> Street would remain open to allow vehicular access adjacent to STAPLES Center and the Los Angeles Convention and Exhibition Center and to ensure unimpeded access to freeway on/off-ramps during these periods.

In addition, 12<sup>th</sup> Street, between Figueroa and Flower Streets, would be realigned as part of the Project, such that the west end of 12<sup>th</sup> Street would align directly across from 12<sup>th</sup> Drive (west of Figueroa Street, between STAPLES Center and Gilbert Lindsey Plaza), thereby eliminating the current offset intersections of 12<sup>th</sup> Drive and 12<sup>th</sup> Street with Figueroa Street and improving vehicular circulation, pedestrian circulation and pedestrian safety. The existing four-lane configuration of 12<sup>th</sup> Street on this block would be maintained. No significant impacts to traffic/circulation would result from this realignment of 12<sup>th</sup> Street.

### **(c) Project Transportation Strategy**

The Project proposes to take advantage of, and build upon, the unique transportation characteristics of the Project site.

The Project site is adjacent to substantial bus and rail transit service, including local and regional bus service, the Metro Blue Line light rail line (station at Flower Street/Pico Boulevard), and the Metro Red Line subway (station at Figueroa Street/7<sup>th</sup> Street), all within easy walking distance of the Project. The Red Line also provides connections to the regional Metrolink rail system at Union Station. In addition, the DASH shuttle provides additional transit connections to the greater downtown area. This high level of transit service to the site would facilitate access to the

Project by transit, such that a significant number of trips to and from the Project would be made by transit. The Project site is also well-served by carpool/vanpool facilities including the Harbor Freeway transitway carpool/bus lanes (HOV) south of Adams Boulevard, which also connect to the HOV lanes on the I-105 Freeway.

The Project site is also adjacent to both STAPLES Center and the Los Angeles Convention and Exhibition Center. A significant number of visitors to the proposed Project are expected to be already in the area to visit either STAPLES Center or the Convention Center. For example, a person attending an event at STAPLES Center or the Convention Center may also visit a restaurant or go shopping in the Project. These visitors to the Project would not create additional trips to the site because they would already be there for another purpose. In the same way, the Project site is located in downtown Los Angeles close to many existing office buildings in the Financial District and Bunker Hill, as well as other existing commercial and residential uses in the downtown area, and within a short distance of the USC campus. A strong connection is therefore expected between the Project site, the rest of downtown, and the USC/Exposition Park area as people walk, take transit, or drive short distances from these downtown uses to the Project site.

These unique characteristics of the Project site would encourage the use of transit and walking for Project trips. The Project would take further advantages of these characteristics by emphasizing connections to the surrounding community through pedestrian, transit, and visual linkages. This use of several modes of access would reduce the level of vehicular access required by the Project.

Due to the size of the Project and its dispersed location over six blocks, traffic accessing the Project would also tend to be dispersed over numerous access routes and roadways rather than being focused or concentrated on only a few locations. In this way, the Project would distribute parking among several on-site and off-site locations, and would include the use of shared parking to facilitate and encourage the dispersal of vehicular traffic, avoid congestion, reinforce the pedestrian linkages, and integrate the Project with the Figueroa Corridor. While the Project would provide on-site parking, additional private and public parking supply in the vicinity of the Project would be utilized, in order to accommodate 100 percent of the anticipated peak parking demand. This dispersed approach to peak parking would avoid the need to build an oversupply of Project-related parking. Parking dispersal would also serve to enhance pedestrian linkages by spreading peak parking demand among both on-site and off-site lots to encourage walking into the Project. The extensive number of arterial roadways and freeway ramps serving the site, which would reduce the traffic volumes and impacts on any specific roadway or freeway ramp, would also facilitate this dispersal strategy.

Finally, the Project area has in the recent past been the focus of intense study and the development of traffic circulation and parking management strategies for STAPLES Center and the Los Angeles Convention and Exhibition Center, as identified under Environmental Setting of this

section. A substantial amount of physical and operational traffic improvements have been installed in the general South Park area to facilitate traffic flow and operations, including access/egress to the area and circulation within the area. The improvements include informational signing, dynamic (changeable) directional signing, a Highway Advisory Radio (HAR) System, traffic signal upgrades, street widenings, a Traffic Operation Center, and the use of traffic control officers during certain events at STAPLES Center or the Convention Center.

In addition, the *PCMP*, discussed on page 235 and below, was implemented to coordinate mobility and parking in the South Park Area. All of these measures have been successful in achieving effective traffic access and circulation in the general Project area since 1998. The Project would be compatible with and utilize these elements and expand upon them to help the continued facilitation of effective traffic circulation and parking management in the area of the Project. The Project would also support the implementation of traffic management measures for the residential areas west of the Harbor Freeway, to ensure that Project traffic does not impact those neighborhoods.

**(d) South Park Event Parking and Circulation Management Plan (PCMP)**

As discussed above, traffic and parking conditions in the Project area are coordinated through the *PCMP*. The *PCMP* was developed by LADOT and the L.A. Arena Company to manage and coordinate the varying traffic and parking conditions caused by changes in activity levels at STAPLES Center and the Los Angeles Convention and Exhibition Center. As one of the visitor-generating venues in the South Park area, the Project would participate in the *PCMP*, in order to assist in accommodating both traffic and parking demand in the area.

**(4) Analysis of Project Impacts**

**(a) Construction**

Project construction would not occur all at once, but rather, as a discrete number of different construction events during the period leading to final buildout of the Project, and would probably occur on an individual block-by-block basis.

During periods of construction activity for the Project, activity would typically involve construction workers, plus the arrival and departure of trucks delivering materials to the site and removing debris resulting from demolition and excavation activities. Both the number of construction workers and trucks would vary throughout the construction process in order to maintain a reasonable schedule of completion.

In general, the construction workers are expected to arrive and depart the site during off-peak hours. Specifically, they are expected to arrive prior to 7:00 A.M. and depart between 3:00 P.M. to 4:00 P.M. Consequently, the impact on peak-hour traffic in the vicinity of the site would be negligible. Depending upon the specific nature of the construction activity (e.g., demolition, excavation, or concrete pouring), truck traffic would be distributed evenly across the workday. During certain activities (e.g., excavation), the truck traffic would be focused on the earlier portions of the workday, with trucks arriving prior to the actual start of work.

It is anticipated that the construction-related traffic would be largely freeway-oriented. Construction workers would arrive and depart via nearby on- and off-ramps serving the Harbor and Santa Monica Freeways. The most commonly used Harbor Freeway ramps would be those nearest the site, including the 8<sup>th</sup>/9<sup>th</sup> Street ramps and the Olympic/Blaine/11<sup>th</sup> Street ramps. On the Santa Monica Freeway, the Flower Street and Grand Avenue ramps would serve most of the construction worker traffic. Also, the Cherry Street/Pico Boulevard off-ramp from the northbound Harbor Freeway and the westbound Santa Monica Freeway would serve a portion of this traffic. Given the off-peak nature of the construction worker traffic, no impact is anticipated with regard to freeway mainline or ramp conditions.

In addition to construction worker and truck traffic, construction activity associated with the Project could require temporary lane closures on certain streets adjacent to the proposed Project site, particularly during utility relocation activity. It is unlikely that complete closure of any major street would be required. Temporary partial traffic lane closures and sidewalk closures would be required for utility relocation as discussed in Sections IV.D, Drainage, and IV.J.2, Sewer, including 12<sup>th</sup> Street, Olympic Boulevard (between Georgia Street and Figueroa Boulevard), and Cherry Street (between 11<sup>th</sup> Street and Olympic Boulevard). Although these closures could temporarily disrupt traffic flow in this area, impacts would be temporary but less than significant. They may, however, contribute to conditions at intersections operating at unacceptable conditions (i.e., LOS D and worse). Other than for utility relocation, full lane closures are not expected to be required, although short-term and partial lane and/or sidewalk closures may be required adjacent to construction sites on occasion throughout the construction period.

One exception to this would be the realignment of 12<sup>th</sup> Street between Figueroa and Flower Streets that would occur as part of the Project. This would involve vacation of the existing street and construction of a new street largely to the south of the existing alignment, except at the east end where 12<sup>th</sup> Street meets Flower Street. Although the existing street would remain open during most of the construction period for the new street, there would be a short period of time when 12<sup>th</sup> Street may need to be partially or fully closed as the realignment at Flower Street is completed. This would be a temporary but significant impact.

Other than for the utility relocation discussed above, other full lane closures are not expected to be required, although short-term partial lane and/or sidewalk closures may be required adjacent to construction sites on occasion throughout the construction period.

**(b) Operation**

**(i) Intersection Impact Analysis**

**a. Weekday P.M. Peak Hours**

Based on the LADOT thresholds of significance, the Project would result in a significant traffic impact at 17 intersections during the weekday P.M. peak hour, as shown in Table 39 on page 257. Thirteen of the 17 impacted intersections would continue to operate at LOS D or better, with the implementation of the proposed Project. Of the remaining four impacted intersections, three would operate at LOS E, and one at LOS F, although this intersection would operate at LOS E without the proposed Project.

**b. Saturday Evening Peak Hours**

Based on the LADOT thresholds of significance, the Project would result in a significant traffic impact at 10 intersections during the Saturday evening peak hour, as shown in Table 39. All of the impacted intersections would continue to operate at LOS D or better with the proposed Project, with the exception of the intersection of Cherry Avenue and Pico Boulevard, which would operate at LOS F with the Project (and LOS E without the Project).

**(ii) Freeway Ramp/Intersection Analysis**

There are numerous freeway ramps and access routes from the freeway system via the surface arterial street system to the Project. This would lead to a dispersed pattern of traffic whereby vehicles use many different ramps, rather than the traffic being focused on only one or two ramps. The key off-ramps that will be utilized by freeway traffic are discussed below.

The 9<sup>th</sup> Street (James Wood Boulevard) southbound off-ramp is a long exit ramp from the SR-110 Harbor Freeway southbound, which joins 9<sup>th</sup> Street (James Wood Boulevard) prior to the intersection of 9<sup>th</sup> Street (James Wood Boulevard) and Georgia Street. This ramp provides a significant distance of queuing space and, as shown in Table 39, the intersection of Georgia and

Table 39

## PROPOSED PROJECT TRAFFIC IMPACT

| No. | Intersection                                     | Type       | Weekday P.M.           |     |                     |     |               |                    | Saturday Evening       |     |                     |     |               |                    |
|-----|--------------------------------------------------|------------|------------------------|-----|---------------------|-----|---------------|--------------------|------------------------|-----|---------------------|-----|---------------|--------------------|
|     |                                                  |            | Future Without Project |     | Future With Project |     | Change in V/C | Significant Impact | Future Without Project |     | Future With Project |     | Change in V/C | Significant Impact |
|     |                                                  |            | V/C                    | LOS | V/C                 | LOS |               |                    | V/C                    | LOS | V/C                 | LOS |               |                    |
| 1   | Blaine & Olympic                                 | Signalized | 0.742                  | C   | 0.770               | C   | 0.028         | No                 | 0.563                  | A   | 0.696               | B   | 0.133         | No                 |
| 2   | Blaine & I-110 SB Off                            | Signalized | 0.340                  | A   | 0.362               | A   | 0.022         | No                 | 0.417                  | A   | 0.454               | A   | 0.047         | No                 |
| 3   | Blaine & 11 <sup>th</sup>                        | Signalized | 0.831                  | D   | 0.895               | D   | 0.064         | Yes                | 0.617                  | B   | 0.665               | B   | 0.048         | No                 |
| 4   | Cherry & Olympic                                 | Signalized | 0.468                  | A   | 0.525               | A   | 0.057         | No                 | 0.330                  | A   | 0.375               | A   | 0.045         | No                 |
| 5   | Cherry & I-110 NB On/11 <sup>th</sup>            | Signalized | 0.584                  | A   | 0.666               | B   | 0.082         | No                 | 0.724                  | C   | 0.828               | D   | 0.104         | Yes                |
| 6   | Cherry & Pico                                    | Signalized | 0.992                  | E   | 1.059               | F   | 0.067         | Yes                | 0.915                  | E   | 1.015               | F   | 0.100         | Yes                |
| 7   | Georgia & 9 <sup>th</sup>                        | Signalized | 0.508                  | A   | 0.618               | B   | 0.110         | No                 | 0.520                  | A   | 0.622               | B   | 0.102         | No                 |
| 8   | Georgia & Olympic                                | Signalized | 0.668                  | B   | 0.762               | C   | 0.094         | Yes                | 0.618                  | B   | 0.727               | C   | 0.109         | Yes                |
| 9   | Georgia & 11 <sup>th</sup>                       | Signalized | 0.367                  | A   | 0.569               | A   | 0.202         | No                 | 0.479                  | A   | 0.834               | D   | 0.355         | Yes                |
| 10  | Francisco & 9 <sup>th</sup> (East)               | Signalized | 0.791                  | C   | 0.818               | D   | 0.027         | Yes                | 0.447                  | A   | 0.521               | A   | 0.074         | No                 |
| 11  | Francisco & Olympic                              | Signalized | 0.435                  | A   | 0.704               | C   | 0.269         | Yes                | 0.598                  | A   | 0.770               | C   | 0.172         | Yes                |
| 12  | Figueroa & 8 <sup>th</sup>                       | Signalized | 0.790                  | C   | 0.832               | D   | 0.042         | Yes                | 0.377                  | A   | 0.510               | A   | 0.133         | No                 |
| 13  | Figueroa & 9 <sup>th</sup>                       | Signalized | 0.741                  | C   | 0.813               | D   | 0.072         | Yes                | 0.466                  | A   | 0.538               | A   | 0.072         | No                 |
| 14  | Figueroa & Olympic                               | Signalized | 0.820                  | D   | 0.993               | E   | 0.173         | Yes                | 0.604                  | B   | 0.778               | C   | 0.174         | Yes                |
| 15  | Figueroa & 11 <sup>th</sup>                      | Signalized | 0.792                  | C   | 0.906               | E   | 0.114         | Yes                | 0.619                  | B   | 0.818               | D   | 0.199         | Yes                |
| 16  | Figueroa & 12 <sup>th</sup> (North) <sup>a</sup> | Signalized | 0.460                  | A   | N/A                 |     |               |                    | 0.420                  | A   | N/A                 |     |               |                    |
| 17  | Figueroa & 12 <sup>th</sup> (South)              | Signalized | 0.432                  | A   | 0.608               | B   | 0.176         | No                 | 0.306                  | A   | 0.495               | A   | 0.189         | No                 |
| 18  | Figueroa & Pico                                  | Signalized | 0.739                  | C   | 0.795               | C   | 0.056         | Yes                | 0.602                  | B   | 0.639               | B   | 0.037         | No                 |
| 19  | Flower & 9 <sup>th</sup>                         | Signalized | 0.581                  | A   | 0.713               | C   | 0.132         | Yes                | 0.632                  | B   | 0.726               | C   | 0.094         | Yes                |
| 20  | Flower & Olympic                                 | Signalized | 0.771                  | C   | 0.924               | E   | 0.153         | Yes                | 0.556                  | A   | 0.771               | C   | 0.215         | Yes                |
| 21  | Flower & 11 <sup>th</sup>                        | Signalized | 0.633                  | B   | 0.745               | C   | 0.112         | Yes                | 0.572                  | A   | 0.726               | C   | 0.154         | Yes                |
| 22  | Flower & 12 <sup>th</sup>                        | Signalized | 0.573                  | A   | 0.650               | B   | 0.077         | No                 | 0.291                  | A   | 0.352               | A   | 0.061         | No                 |
| 23  | Flower & Pico                                    | Signalized | 0.846                  | D   | 0.880               | D   | 0.034         | Yes                | 0.521                  | A   | 0.547               | A   | 0.026         | No                 |
| 24  | Hope & 11 <sup>th</sup>                          | Signalized | 0.537                  | A   | 0.661               | B   | 0.124         | No                 | 0.302                  | A   | 0.501               | A   | 0.199         | No                 |
| 25  | Hope & 12 <sup>th</sup>                          | Signalized | 0.298                  | A   | 0.375               | A   | 0.077         | No                 | 0.172                  | A   | 0.232               | A   | 0.060         | No                 |
| 26  | Hope & Pico                                      | Signalized | 0.512                  | A   | 0.611               | B   | 0.099         | No                 | 0.345                  | A   | 0.367               | A   | 0.022         | No                 |

Table 25 (Continued)

## PROPOSED PROJECT TRAFFIC IMPACT

| No. | Intersection               | Type       | Weekday P.M.           |     |                     |     |               |                    | Saturday Evening       |     |                     |     |               |                    |
|-----|----------------------------|------------|------------------------|-----|---------------------|-----|---------------|--------------------|------------------------|-----|---------------------|-----|---------------|--------------------|
|     |                            |            | Future Without Project |     | Future With Project |     | Change in V/C | Significant Impact | Future Without Project |     | Future With Project |     | Change in V/C | Significant Impact |
|     |                            |            | V/C                    | LOS | V/C                 | LOS |               |                    | V/C                    | LOS | V/C                 | LOS |               |                    |
| 27  | Grand & 17 <sup>th</sup>   | Signalized | 0.690                  | B   | 0.728               | C   | 0.038         | No                 | 0.427                  | A   | 0.462               | A   | 0.035         | No                 |
| 28  | Grand & 18 <sup>th</sup>   | Signalized | 0.453                  | A   | 0.480               | A   | 0.027         | No                 | 0.451                  | A   | 0.507               | A   | 0.056         | No                 |
| 29  | Los Angeles & I-10 WB Off  | Signalized | 0.615                  | B   | 0.648               | B   | 0.033         | No                 | 0.456                  | A   | 0.516               | A   | 0.060         | No                 |
| 30  | Figueroa & 7 <sup>th</sup> | Signalized | 0.750                  | C   | 0.784               | C   | 0.034         | No                 | 0.346                  | A   | 0.384               | A   | 0.038         | No                 |
| 31  | Flower & 7 <sup>th</sup>   | Signalized | 0.806                  | D   | 0.856               | D   | 0.050         | Yes                | 0.289                  | A   | 0.407               | A   | 0.118         | No                 |
| 32  | Flower & 8 <sup>th</sup>   | Signalized | 0.710                  | C   | 0.756               | C   | 0.046         | Yes                | 0.291                  | A   | 0.421               | A   | 0.130         | No                 |
| 33  | Hope & 9 <sup>th</sup>     | Signalized | 0.481                  | A   | 0.510               | A   | 0.029         | No                 | 0.150                  | A   | 0.189               | A   | 0.039         | No                 |
| 34  | Hope & Olympic             | Signalized | 0.584                  | A   | 0.623               | B   | 0.039         | No                 | 0.245                  | A   | 0.336               | A   | 0.091         | No                 |
| 35  | Grand & 9 <sup>th</sup>    | Signalized | 0.529                  | A   | 0.561               | A   | 0.032         | No                 | 0.149                  | A   | 0.264               | A   | 0.115         | No                 |
| 36  | Grand & Olympic            | Signalized | 0.609                  | B   | 0.629               | B   | 0.020         | No                 | 0.327                  | A   | 0.389               | A   | 0.062         | No                 |
| 37  | Grand & 11 <sup>th</sup>   | Signalized | 0.591                  | A   | 0.704               | C   | 0.113         | Yes                | 0.148                  | A   | 0.371               | A   | 0.223         | No                 |
| 38  | Olive & 9 <sup>th</sup>    | Signalized | 0.499                  | A   | 0.533               | A   | 0.034         | No                 | 0.178                  | A   | 0.249               | A   | 0.071         | No                 |
| 39  | Olive & Olympic            | Signalized | 0.585                  | A   | 0.670               | B   | 0.085         | No                 | 0.311                  | A   | 0.420               | A   | 0.109         | No                 |
| 40  | Olive & 11 <sup>th</sup>   | Signalized | 0.489                  | A   | 0.561               | A   | 0.072         | No                 | 0.126                  | A   | 0.272               | A   | 0.146         | No                 |

<sup>a</sup> Eliminated by Project with realignment of 12<sup>th</sup> Street to Figueroa & 12<sup>th</sup> Drive (South).

Source: The Mobility Group/Kaku Associates, December 2000

9<sup>th</sup> Street (James Wood Boulevard) would operate at LOS B in both the weekday P.M. peak hour and Saturday evening peak hour and no significant impact would be caused by the Project at this intersection. Project-related impacts to the ramp at this location would be less than significant.

The 9<sup>th</sup> Street (James Wood Boulevard) northbound off-ramp is an exit ramp from the SR-110 Harbor Freeway northbound, with a long distance from the freeway exit ramp to the intersection at 9<sup>th</sup> Street (James Wood Boulevard) and Francisco Street at the end of the ramp. Table 39 indicates that this intersection would operate at LOS D in the weekday P.M. peak hour, and LOS A on a Saturday evening peak with a significant impact caused by the Project in the P.M. peak.

The Olympic Boulevard southbound off-ramp is an exit ramp from the southbound SR-110 Harbor Freeway to Blaine Street. As shown in Table 39, this intersection would operate at LOS A in both the weekday P.M. and Saturday evening peak periods with no significant impact caused by the Project. This off-ramp was recently improved and widened in conjunction with the recently constructed STAPLES Center project. It is concluded that there would be no impact on this off-ramp.

The Cherry Street/Pico Boulevard northbound off-ramp from the I-10 Santa Monica Freeway provides a long exit ramp terminating at the intersection of Cherry Street and Pico Boulevard. This intersection, as shown in Table 39, would operate at LOS F in both the weekday P.M. peak and Saturday evening peak hour with the Project causing significant impacts during both time periods at this location. However, there is one city block between this intersection and the signalized intersection to the south that is actually the termination of the freeway ramps. In addition, the ramps extend a long distance back to the freeway.

The Grand Avenue eastbound off-ramp from the I-10 Santa Monica Freeway provides a long exit ramp terminating at the intersection of Grand Avenue and 18<sup>th</sup> Street. The impact analysis, as shown in Table 39, indicates that this intersection will operate at LOS A in both the weekday P.M. peak and Saturday evening peak hour with no significant impact caused by the Project. Thus, no significant impacts would occur on this ramp.

The Los Angeles Street westbound off-ramp from the I-10 Freeway terminates at the end of the off-ramp at the intersection of Los Angeles Street and 17<sup>th</sup> Street. As shown in Table 39, this intersection would operate at LOS B in the weekday P.M. peak, and LOS A in the Saturday evening peak hour with no significant impact caused by the Project. Thus, no significant impacts would occur at this ramp.

### (iii) Residential Street Analysis

West of the Harbor Freeway there are a number of residential streets, primarily 9th Street, (James Wood Boulevard), 11<sup>th</sup> Street, and 12<sup>th</sup> Street, that could potentially be impacted by the Project. An evaluation was conducted to address this issue as described below.

The arterial streets approaching the Project site from the west are 8th Street (a Secondary Highway), Olympic Boulevard (a Major Highway), and Pico Boulevard (a Secondary Highway). Other streets include 9<sup>th</sup> Street (James Wood Boulevard, also a Secondary Highway), 11<sup>th</sup> Street (a Collector Street), and 12<sup>th</sup> Street (a Local Street). Olympic Boulevard leads to the primary parking entrances to the Olympic Properties. There is only one parking entrance located on 11<sup>th</sup> Street (a right-in/right-out for the Figueroa Central block), with no parking entrances from 11<sup>th</sup> Street to the Olympic Properties. Pico Boulevard serves the south end of the Project, and parking entrances on both Figueroa Street and Flower Street to the Figueroa Central and Figueroa South blocks.

It is expected that Project traffic will use the major streets of Olympic Boulevard and Pico Boulevard, and not the minor/local streets of 9<sup>th</sup>, 11<sup>th</sup> and 12<sup>th</sup> Streets, for a number of reasons. Firstly, these major streets have the best name recognition and offer the most direct approach route with the highest travel speeds and fewest stops (signals rather than more frequent stop signs). Secondly, the minor streets do not provide direct access routes to the Project parking driveways (12<sup>th</sup> Street in particular does not provide good access to the Project site, terminating at Cherry Street). Thirdly, measures were implemented in conjunction with the opening of STAPLES Center, to direct traffic on the major roadways through directional signing of approach/egress routes to avoid the residential neighborhoods. Operating experience during the first year of STAPLES Center has shown there to be no significant volumes of the STAPLES Center traffic using streets such as 11<sup>th</sup> and 12<sup>th</sup> Streets west of the Harbor Freeway. Ninth Street is not expected to be used as a traffic route to the Project for similar reasons, with both 8<sup>th</sup> Street and Olympic Boulevard being more direct and convenient streets. In addition, land uses along 9<sup>th</sup> Street are primarily commercial and institutional rather than residential.

Even though it is considered unlikely, there is some potential for a small amount of the Project traffic to use these streets. For this reason, further analysis was conducted to explore this potential. The anticipated distribution of Project traffic, as shown in Figure 38, estimated a total of eight percent of Project traffic would use Olympic Boulevard and Pico Boulevard to access the Project site. Potentially, some of this traffic could “cut-through” the residential neighborhood on 11<sup>th</sup> Street and 12<sup>th</sup> Street, rather than stay on the arterial roadways. If as much as 20 percent of this traffic did this, then potentially approximately 765 daily vehicles might use 11<sup>th</sup> and 12<sup>th</sup> Streets in total on a typical weekday. On a Saturday, arterial traffic volumes are lower, so less traffic might divert off those streets. If three quarters of the weekday total (or 15 percent) used neighborhood streets, then potentially approximately 580 daily vehicles might use 11<sup>th</sup> and 12<sup>th</sup> Streets in total on a

typical Saturday. Assuming that two-thirds of these vehicles might use 11<sup>th</sup> Street and one-third might use 12<sup>th</sup> Street (because 11<sup>th</sup> Street is a more direct route), then the potential impacts at four key locations on 11<sup>th</sup> and 12<sup>th</sup> Streets are summarized in Table 39.

LADOT has developed criteria for significant impacts on local residential streets as follows:

| <b>Projected Average<br/>Daily Traffic<br/>With Project<br/>(Final ADT)</b> | <b>Project Related<br/>Increase in<br/>ADT</b> |
|-----------------------------------------------------------------------------|------------------------------------------------|
| 0 – 999                                                                     | 16% or more of final ADT                       |
| ≥ 1,000                                                                     | 12% or more of final ADT                       |
| ≥ 2,000                                                                     | 10% or more of final ADT                       |
| ≥ 3,000                                                                     | 8% or more of final ADT                        |

As shown in Table 39, on a weekday, potential impacts could occur on 11<sup>th</sup> Street east of Burlington Avenue, and on 12<sup>th</sup> Street east of Burlington Avenue and between Valencia and Albany Streets, with potential traffic increases slightly above LADOT criteria for significant impact. The potential increase on 11<sup>th</sup> Street between Valencia Street and Albany Street would be less than significant according to LADOT criteria. A similar situation could occur on a Saturday, as shown in Table 39, again where potential increases could be slightly above LADOT criteria for three of the four locations, indicating potential significant impacts.

While the above analysis evaluated the potential for significant impacts, the actual occurrence of such impacts is considered unlikely due to the fact that the arterial streets provide the most direct and convenient access to the Project site and its driveways, and that experience with STAPLES Center has shown no significant traffic intrusion into the neighborhood.

The Project Applicant is committed to preventing any significant traffic impacts occurring on these residential streets west of the Harbor Freeway due to the Project, and will work with LADOT to accomplish this as necessary. This could include additional signage for the Entertainment District, in addition to that for STAPLES Center, to define major street approach/egress routes, as well as additional measures, or the Project Applicant depositing monies with LADOT for the development and implementation of a Neighborhood Traffic Management Program, if it becomes necessary, using any unused monies to be refunded to the Project Applicant after three years.

#### **(iv) Closure of 11<sup>th</sup> Street**

As described above, the Project proposes the regular temporary closure of 11<sup>th</sup> Street outside of the weekday A.M. and P.M. peak periods, in order to facilitate safe pedestrian flow and to enhance

the pedestrian environment in the general area of STAPLES Center, the Convention Center, and the Project.

The Plaza that is planned will be used for all types of civic, community, and commercial events, including film premieres, exhibits, art shows, music, community events, and multi-media events/promotions. The synergy between the L.A. Entertainment District north of 11<sup>th</sup> Street and STAPLES Center and the Convention Center south of 11<sup>th</sup> Street will lead to high volumes of pedestrian movements across 11<sup>th</sup> Street. The juxtaposition of the Plaza opposite the main entrance to STAPLES Center and Star Plaza also suggests that for many events, it would be more practical and safer for these spaces to operate as one large physical civic outdoor space, without traffic passing along 11<sup>th</sup> Street, which divides the two spaces.

While the Project proposes to close the section of 11<sup>th</sup> Street between Georgia Street and Figueroa Street on a regular basis for such events, the street would remain under public ownership and operation, and would be kept open during peak traffic flow periods.

Eleventh Street is not an Arterial Street in the City's General Plan. Furthermore, traffic count information shows that traffic volumes are typically low on 11<sup>th</sup> Street between Figueroa Street and Cherry Street, ranging from 6,100 to 10,900 daily vehicles and averaging 7,800 daily vehicles on a weekday. The daily vehicle total is about 4,200 on a Saturday and about 3,700 on a Sunday. Eleventh Street is therefore not a critical link in the area's street network. While 11<sup>th</sup> Street does lead to freeway ramps with the Harbor Freeway at Cherry and Blaine Streets, there are alternative routes available to those ramps during the temporary closures. The southbound on-ramp at Blaine Street and 11<sup>th</sup> Street can be accessed via Olympic Boulevard and Blaine Street rather than 11<sup>th</sup> Street, and, in fact, is currently signed to direct the majority of traffic to do so. Instead of accessing the northbound on-ramp at Cherry Street and 11<sup>th</sup> Street via 11<sup>th</sup> Street, traffic could use alternate ramps at 9<sup>th</sup> Street (via Olympic Boulevard and Georgia Street), and at 8<sup>th</sup> Street (via Figueroa Street and 8<sup>th</sup> Street). Finally, traffic using the northbound off-ramp from the Harbor Freeway to Pico Boulevard and Cherry Street, can continue northbound on Cherry Street to Olympic Boulevard or remain on the Harbor Freeway to 9<sup>th</sup> Street.

The feasibility of temporarily closing 11<sup>th</sup> Street was analyzed for the Saturday evening peak hour, which would be the time of highest traffic volume on the adjacent roadway network on a Saturday with incoming traffic to both STAPLES Center and the Project. The analysis assumed that traffic temporarily diverted away from 11<sup>th</sup> Street between Georgia and Figueroa Streets would use Cherry Street, Olympic Boulevard, Pico Boulevard, Figueroa Street, Hope Street and Olive Street. This analysis can be considered a conservative "worst case", as it assumed that traffic diverted by

the temporary closure of 11<sup>th</sup> Street would generally take the nearest alternate route, rather than all traffic diverting onto Figueroa Street.<sup>40</sup>

The Traffic Study determined that without the temporary closure of 11<sup>th</sup> Street, the Project would create ten significant impacts after mitigation, although all locations would operate at LOS D, except for the Cherry Street/Pico Boulevard intersection, which would operate at LOS F. With the closure of 11<sup>th</sup> Street, the Project would create nine significant impacts, with five locations operating at LOS D, and four locations operating at LOS F. The four intersections operating at LOS F include Cherry Street/Pico Boulevard, Georgia Street/Olympic Boulevard, Francisco Street/Olympic Boulevard, and Figueroa Street/Olympic Boulevard.

With mitigation and without the closure of 11<sup>th</sup> Street, the Project would cause five significant impacts, although four locations would operate at LOS C and one at LOS D. With mitigation and with the closure of 11<sup>th</sup> Street, the Project would cause eight significant impacts, of which six locations would operate at LOS C, and two would operate at LOS E (Francisco Street/Olympic Boulevard and Figueroa Street/Olympic Boulevard).

During the Saturday evening peak hour, temporary closure of 11<sup>th</sup> Street would lead to high turning volumes (i.e., approximately 800 vehicles per hour) at certain key intersections, including the westbound left turn on Olympic Boulevard at Georgia Street, the westbound left turn on Olympic Boulevard at Francisco Street, and the northbound left turn on Figueroa Street at Olympic Boulevard. Heavy, although lower, turning volumes would occur for eastbound left turns on 11<sup>th</sup> Street at Georgia Street, northbound right turns on Georgia Street at Olympic Boulevard, and westbound right turns on 11<sup>th</sup> Street at Figueroa Street.

Some of these turning movements would not necessarily create significant impacts or poor operations, while others could be mitigated or improved by the provision of temporary turning lanes delineated by traffic cones and the deployment of traffic control officers (for example, providing a temporary dual right turn lane northbound on Georgia Street at Olympic Boulevard and a temporary dual northbound left turn lane on Figueroa Street at Olympic Boulevard), and additional traffic management measures. However, even with such temporary measures, the intersections of Figueroa Street/Olympic Boulevard and Francisco Street/Olympic Boulevard would operate at LOS E.

The above analysis addresses a “worst case” condition rather than a typical condition because it addresses a Level 4 *PCMP* Condition involving STAPLES Center and Convention Center events, as well as full activity on the Project site, including a sold-out theater event. There would be many Saturday evenings when a lower level of activity would occur either at STAPLES

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<sup>40</sup> For this analysis, some of the westbound 11<sup>th</sup> Street traffic was assumed to divert onto Olive Street and Hope Street to Olympic Boulevard.

Center or particularly at the Convention Center. The low traffic volumes on 11<sup>th</sup> Street at other times also indicate that temporary closure of 11<sup>th</sup> Street should not be a problem during the midday and afternoon periods. Nevertheless, it is precisely during the higher activity periods that there is the greatest need to temporarily close 11<sup>th</sup> Street for enhanced pedestrian circulation and safety in the Project area. Thus, the benefit of an improved pedestrian environment on 11<sup>th</sup> Street may outweigh the impacted vehicular conditions on Olympic Boulevard.

In addition to traffic management measures discussed above, additional management of the parking supply would help to alleviate poor traffic conditions on Olympic Boulevard. During times of 11<sup>th</sup> Street closure and high event activity, a higher proportion of vehicles could be parked east of Figueroa Street and south of 11<sup>th</sup> Street, thereby reducing the traffic load on Olympic Boulevard. For example, during the period of highest parking demand for the Project on a Saturday evening, the Convention Center parking supply is typically unused. Use of the Convention Center parking facilities to the south of 11<sup>th</sup> Street, as well as other public parking in the area east of Figueroa Street, would reduce the number of vehicles using Olympic Boulevard to access the parking garages on Olympic West and Olympic East Properties, thereby reducing traffic volumes and improving traffic conditions on Olympic Boulevard. Given the operational success of the STAPLES Center *PCMP*, it is likely that these impacts can be reduced.

In order to create a more pedestrian friendly and “seamless” environment along 11<sup>th</sup> Street, the Project proposes that potential design and traffic control features could include the following:

- Reduce the current mid-block 92’ curb-curb width to a 70’ curb-curb width. This will probably involve a 15-20’ street vacation on the north side of the street.
- Provide two traffic lanes plus one left turn lane in each direction.
- Retain the existing loading/waiting zone area adjacent to STAPLES Center.
- Provide special paving on 11<sup>th</sup> Street, between the Plaza and STAPLES Center, to link these areas together, and provide a visual message to motorists of a special environment. This paving will need to delineate and distinguish the road surface from the Plaza and sidewalk areas, and retain the necessary lane striping.
- Provide a roadway edge treatment other than a standard curb/gutter (for example, a rolled curb), which might also include bollards, planters, etc.

It is proposed that the street would be closed on a regular basis for events in the Plaza, STAPLES Center, and the Convention Center. The details of when and how the street would be closed will be addressed in the Specific Plan, and could include the following proposed parameters:

- Street could remain open during peak periods and nighttime (3:00 A.M. to 9:00 A.M., and 4:30 P.M. to 6:30 P.M.) on weekdays.
- Street could be closed down between 9:00 A.M. and 4:30 P.M., and 6:30 P.M. to 3:00 A.M., as necessary for events in the Plaza, STAPLES Center and the Convention Center, as well as on weekends and holidays.
- Street would be closed down only between Georgia and Figueroa Streets.
- Street would remain in public ownership and operation.
- Planning for closures of 11<sup>th</sup> Street could be accomplished through the regular actions of the South Park Event Coordination Committee.
- Street closures could be accomplished via the following types of measures:
  - Possibly street level barricades and signs, if necessary, or pop-up bollards across 11<sup>th</sup> Street on west side of Figueroa Street, and east side of Georgia Street.
  - Turning on of illuminated overhead signs (probably on signal mast arms) indicating “No Entry,” “Left Turn Only,” and “Right Turn Only” facing 11<sup>th</sup> Street westbound at Figueroa Street and 11<sup>th</sup> Street eastbound at Georgia Street.
  - Use of South Park Changeable Message Signs (CMS) to provide advance warnings of street closures, at the following locations:
    - 11<sup>th</sup> Street WB at Grand Avenue
    - Flower Street SB at Olympic Boulevard
    - Cherry Street NB at 12<sup>th</sup> Street
    - Figueroa Street NB at 18<sup>th</sup> Street
    - 11<sup>th</sup> Street EB at Blaine Street (portable)

The closure of 11<sup>th</sup> Street will have corresponding benefits to the residential neighborhoods on the west side of the Harbor Freeway, by redirecting traffic to major arterials such as Olympic Boulevard and Pico Boulevard.

A Traffic Control Plan will be prepared, subject to approval by LADOT and the City Council, for the closure of 11<sup>th</sup> Street.

**(v) CMP Freeway and Arterial Analysis**

Based on the Project's trip distribution and additional analysis of the anticipated dispersal of trips beyond the immediate Project area, the number of Project trips likely to pass through the *CMP* monitoring locations closest to the Project was calculated. These findings are described in the following paragraphs.

**a. CMP Arterial Analysis**

According to the *CMP*, the following four arterial monitoring stations are closest to the Project site:

- Sunset Boulevard and Alvarado Street;
- Wilshire Boulevard and Alvarado Street;
- Western Avenue and 9<sup>th</sup> Street (James Wood Boulevard); and
- Alameda Street and Washington Boulevard.

The intersection of Western Avenue/9<sup>th</sup> Street was not analyzed as part of the *CMP* analysis as less than 50 peak hour Project trips would pass through this intersection. The remaining three intersections were analyzed. As can be seen from Table 41 on page 267, the analysis indicates that the Project would have a less than significant impact on *CMP* arterial monitoring locations.

**b. CMP Freeway Analysis**

The *CMP* identifies the following freeway monitoring stations that are closest to the Project site:

- I-10 west of Vermont Avenue;
- 1-10 east of La Brea Avenue;
- I-10 west of I-710;
- US-101 east of Alvarado Street;
- US-101 south of Santa Monica Boulevard;
- US-101 west of Vignes Street;

Table 41

**CMP ANALYSIS – ARTERIAL MONITORING LOCATIONS  
INTERSECTION LEVEL OF SERVICE**

| N <sup>o</sup> | Intersection       | P.M. Peak Hour |     |                        |     |                     |     |               |                    |
|----------------|--------------------|----------------|-----|------------------------|-----|---------------------|-----|---------------|--------------------|
|                |                    | Existing       |     | Future Without Project |     | Future With Project |     | Change in V/C | Significant Impact |
|                |                    | V/C            | LOS | V/C                    | LOS | V/C                 | LOS |               |                    |
| 1.             | Sunset/Alvarado    | 0.866          | D   | 1.013                  | F   | 1.022               | F   | 0.009         | No                 |
| 2.             | Wilshire/Alvarado  | 0.572          | A   | 0.669                  | B   | 0.678               | B   | 0.009         | No                 |
| 3.             | Washington/Alameda | 0.641          | B   | 0.750                  | C   | 0.759               | C   | 0.009         | No                 |

*Source: The Mobility Group/Kaku Associates, December 2000.*

- I-5 north of Stadium Way;
- I-5 east of I-710;
- SR-110 south of US-101;
- SR-110 at Alpine Street;
- SR-110 at Pasadena Avenue;
- SR-110 at Slauson Avenue; and
- SR-60 east of Indiana.

The *CMP* analysis found that the Project would add more than 150 peak hour trips in either direction to three of the above *CMP* freeway monitoring locations. As can be seen from Table 43 on page 268, the Project would cause significant impacts at two of the *CMP* freeway monitoring locations. At Station 1048, SR-110 south of US-101, the P.M. peak hour northbound D/C ratio would increase by 0.033 and the southbound D/C ratio would increase by 0.035. At Station 1049, SR-110 at Alpine Street, the P.M. peak hour northbound D/C ratio would increase by 0.029 and the southbound D/C ratio would increase by 0.031. Both sections of freeway would be operating at LOS F (even without the Project), and as these increases are slightly above the threshold of an increase in D/C ratio of 0.02, the increases at these locations would both constitute a significant impact. The Project would not cause significant impacts at any other *CMP* freeway monitoring locations.

Table 43

**CMP ANALYSIS - FREEWAY MONITORING LOCATIONS****Future With Project Conditions**

|                 |        |                 | Northbound/Eastbound<br>P.M. Peak Hour Vehicles |                             |                 |          |       |              |      |                     |                            |  |
|-----------------|--------|-----------------|-------------------------------------------------|-----------------------------|-----------------|----------|-------|--------------|------|---------------------|----------------------------|--|
| Freeway Segment |        |                 | Without<br>Project                              | Demand<br>Project<br>Volume | With<br>Project | Capacity | D/C   | LOS<br>(A-F) | LOS  | Change<br>in<br>D/C | Signifi-<br>cant<br>Impact |  |
| Station         | Route  | Location        |                                                 |                             |                 |          |       |              |      |                     |                            |  |
| 1013            | I-10   | West of Vermont | 19,960                                          | 151                         | 20,111          | 12,500   | 1.609 | F            | F(3) | 0.012               | No                         |  |
| 1048            | SR-110 | South of US-101 | 12,774                                          | 260                         | 13,034          | 8,000    | 1.629 | F            | F(3) | 0.033               | Yes                        |  |
| 1049            | SR-110 | Alpine          | 9,581                                           | 173                         | 9,754           | 6,000    | 1.626 | F            | F(3) | 0.029               | Yes                        |  |

|                 |        |                 | Southbound/Westbound<br>P.M. Peak Hour Vehicles |                             |                 |          |       |       |      |                     |                            |
|-----------------|--------|-----------------|-------------------------------------------------|-----------------------------|-----------------|----------|-------|-------|------|---------------------|----------------------------|
| Freeway Segment |        |                 | Without<br>Project                              | Demand<br>Project<br>Volume | With<br>Project | Capacity | D/C   | LOS   |      | Change<br>in<br>D/C | Signifi-<br>cant<br>Impact |
| Station         | Route  | Location        |                                                 |                             |                 |          |       | (A-F) | LOS  |                     |                            |
| 1013            | I-10   | West of Vermont | 18,593                                          | 138                         | 18,731          | 12,500   | 1.498 | F     | F(3) | 0.011               | No                         |
| 1048            | SR-110 | South of US-101 | 11,899                                          | 282                         | 12,181          | 8,000    | 1.523 | F     | F(3) | 0.035               | Yes                        |
| 1049            | SR-110 | Alpine          | 8,924                                           | 188                         | 9,112           | 6,000    | 1.519 | F     | F(3) | 0.031               | Yes                        |

Source: *The Mobility Group/Kaku Associates, December 2000*

**(vi) Transit Analysis**

The proposed Project is located adjacent to the Pico/Flower Blue Line light rail station and close to numerous bus routes, which together provide a substantial level of rail and bus transit to the area. It is therefore expected that a significant number of trips to and from the Project would use transit.

Approximately 695 transit trips would be generated by the Project in the weekday P.M. peak hour, and 575 transit trips would be generated during the Saturday evening peak hour. (These estimates include a factor of 1.4 to convert vehicle trips to person trips, as per the *CMP*).

The transit service that serves the site is comprised of the Metro Blue Line, 28 bus routes, and the LADOT DASH service. During the weekday P.M. peak hour, the Project area is directly served by a total of 19 trains (northbound and southbound, providing both inbound and outbound service in both directions for 336 total bus movements to/from the Project area). In addition, there

are 32 DASH buses (northbound and southbound to/from the Project site for a total of 64 bus movements). During the Saturday evening peak hour, a total of eight trains (northbound and southbound, for 16 total train movements) and 53 buses (inbound and outbound service for 106 total bus movements) serve the Project site.

These transit vehicles collectively provide a transit capacity of approximately 38,000 person trips to/from the area during a weekday peak hour (19,000 on the light rail and 19,000 on the bus system), and 13,500 person trips during the Saturday evening peak hour (8,000 on the rail and 5,500 on the bus system). Future light rail capacity is likely to be even higher as Blue Line station platforms are extended to accommodate these conditions rather than the current two-car trains.

During the weekday peak P.M. peak hour, the 695 transit trips generated by the Project would comprise about two percent of the total transit capacity serving the area. During the Saturday evening peak hour, the 575 transit trips generated by the Project would comprise about four percent of the transit capacity serving the area. This analysis demonstrates that the Project would not significantly impact the transit system serving the area. This analysis is based on current levels of transit service and hours of operation (including Blue Line service up to about 11:50 P.M.).

### **c. MITIGATION MEASURES**

#### **(1) Construction**

1. Prior to construction, the Applicant shall, in consultation and cooperation with the South Park Event Coordinating Committee, develop and implement a Construction Management Plan for construction of the Project. The goals of the Construction Management Plan shall be to minimize conflicts with STAPLES Center and Convention Center operations and conflicts and delays in construction of the Project.

The Construction Management Plan shall provide for the coordination of construction staging areas and traffic controls, in order to assist in the orderly flow of pedestrian and vehicular traffic in the Project area, and to/from STAPLES Center and the Convention Center events; and of labor, materials and construction vehicles to the construction site, including the staging of delivery trucks on public streets surrounding the Project site. The Construction Management Plan shall also address measures to ensure adequate access to STAPLES Center and to the Convention Center, if temporary lane closures on adjacent roadways are required.

Prior to full implementation of mitigation measures in this section, the Construction Management Plan should consider the use of temporary operational techniques (e.g., coning, temporary/changeable signs, etc.), as appropriate to the circulation needs of particular events.

## **(2) Operation**

### **(a) Introduction**

The above analysis identified that the Project would cause significant traffic impacts at 17 locations in the P.M. peak hour and at 10 locations in the Saturday evening peak hour. During the P.M. peak hour, seven of the significant impacts would be at locations where the resultant level of service will be LOS C and six will be at locations where the resultant level of service will be LOS D. At all these locations, traffic operations will be at an acceptable level with the Project. A total of three impacts will occur at locations where the resultant LOS will be LOS E, and one will be at a location where LOS F will result with the Project.

### **(b) Background**

The Project is located in the downtown Los Angeles area, where most of the street system is fully built out and is already striped for maximum capacity and operational effectiveness within the available right-of-way. In most cases, street widenings are not feasible, because either right-of-way acquisition is not possible, or because it is not practical or desirable to reduce sidewalk widths due to high pedestrian flows on downtown sidewalks.

In the specific area of the Project, some significant roadway improvements were implemented as part of the recently constructed STAPLES Center project, including an extension of Cherry Street from 11<sup>th</sup> Street to Olympic Boulevard, and intersection widenings at Georgia Street/Olympic Boulevard, Olympic Boulevard/Figueroa Street and 11<sup>th</sup> Street/Figueroa Street.

Also, the South Park Traffic Management Project was recently implemented, comprising significant improvements for the operation of the roadway system in the South Park area and including traffic signal system upgrades to ATCS, additional directional signage, changeable message signs (CMS), a Highway Advisory Radio (HAR) system, and a Traffic Operations Center and STAPLES Center events. The South Park Event Management Committee (consisting of representatives of the Convention Center, STAPLES Center, Los Angeles Police Department, and LADOT) meets regularly to plan and coordinate traffic management needs and strategies for the area.

With traffic signals in the area already a part of both the City's ATSAC (first generation) and ATCS (second generation) traffic signal control systems, and with the resources of the South Park Traffic Management System, the area surrounding the Project site has the most extensive and sophisticated system of traffic management and control anywhere in the City of Los Angeles.

## Overall Mitigation Strategy

In the context of this background, the overall mitigation strategy for the Project comprises the following elements:

- Implement specific roadway improvements where necessary, feasible and practical.
- Maintain a good balance between vehicular and pedestrian circulation, emphasizing adequate sidewalk widths and pedestrian safety.
- Encourage transit use and trip reduction measures.
- Provide off-site parking for the majority of employees.
- Participate in the South Park Event Management Committee to coordinate Project traffic flows and circulation with that of STAPLES Center and Convention Center events.
- Ensure adjacent residential neighborhoods are protected from traffic and parking impacts.
- Identify and design mitigation measures to enhance pedestrian safety.

### (c) Specific Roadway Improvements

In order to address significant traffic impacts the following specific street mitigation measures are proposed.

2. Blaine Street/11<sup>th</sup> Street/SR-110 Southbound On-Ramp. The Project would create a significant traffic impact in the P.M. peak hour at this location, changing the V/C ratio from 0.831, LOS D to 0.895, LOS D. Lane re-striping or street widening of either 11<sup>th</sup> Street or Blaine Street is not possible at this location without taking additional right-of-way, which is not considered feasible. However, it is possible to improve the freeway on-ramp from its current one lane configuration to a two lane configuration. The ramp would be widened to two lanes, probably involving a retaining wall on the west side. This will increase storage capacity on the on-ramp and should benefit operation of the intersection, although the impact would remain significant.
3. Cherry Street & Pico Boulevard. The Project would cause a significant impact at this location in both the P.M. peak hour and the Saturday evening peak hour. The

proposed mitigation measure is to widen the northbound approach on Cherry Street at this intersection, which currently provides an exclusive left lane, one shared through/left lane, one shared through/right lane, and an exclusive right turn lane, and re-stripe to provide two exclusive left turn lanes, two through lanes, and an exclusive right turn lane. This mitigation measure would eliminate the significant impact at this intersection in both the P.M. peak hour and the Saturday evening peak hour.

4. Georgia Street & Olympic Boulevard. The Project would cause a significant impact at this location in both the P.M. peak hour and the Saturday evening peak hour, although in both cases the level of service would remain LOS C with a V/C ratio of 0.762 in the P.M. peak hour, and 0.727 in the Saturday evening peak hour. The proposed improvement at this location is to add a westbound protected left turn phase on Olympic Boulevard, and to widen the northbound approach on Georgia Street to replace the existing configuration of one shared left/through lane and one shared through/right lane with one exclusive left turn lane, one through lane, and one exclusive right turn lane. While this would facilitate traffic movements at the intersection, the significant impacts would remain in both time periods.
  
5. Francisco Street & Olympic Boulevard. The Project would cause significant impacts at this intersection in both the P.M. peak hour and the Saturday evening peak hour, although in both cases the level of service would be LOS C, which would remain an acceptable operating condition. The Project proposes to install a new traffic signal at this location. With the Project, the V/C ratio would be 0.704 in the P.M. peak hour, and 0.770 in the Saturday evening peak hour. The proposed mitigation measure is to widen Olympic Boulevard on the south side of the street and re-stripe the westbound approach to provide a dual left turn lane (into the Project driveway). Also, to provide a four-lane Project driveway, configured for two inbound lanes and two outbound lanes to the underground parking garage. The outbound lanes should be striped for a shared left/through/right turn lane and an exclusive right turn lane. Immediately to the west of the Project driveway, provide a one lane southbound entry to the on-site surface driveway into the site. Also, re-stripe the southbound approach on Francisco Street from the current single shared left/through/right lane to one exclusive left turn lane and a shared through/right lane. These measures, while improving traffic flow at the intersection, would not mitigate either time period. No further mitigation is proposed for two reasons. Firstly, LOS C would remain an acceptable operating condition. Secondly, while providing a wider exit driveway from the Project (additional exit lane) would improve the LOS, it would degrade the pedestrian environment and so is not recommended.
  
6. Figuerroa Street & Olympic Boulevard. The Project would cause a significant impact at this intersection in both the P.M. peak hour and the Saturday evening peak hour. In the P.M. peak hour the V/C ratio would be increased from 0.820, LOS C to 0.993, LOS E, while in the Saturday evening peak hour it would increase from 0.604, LOS B to 0.778, LOS C. The proposed mitigation measure is to re-stripe the eastbound

approach on Olympic Boulevard, which currently provides an exclusive left turn lane, three through lanes, and an exclusive right turn lane, to provide two exclusive left turn lanes, three through lanes, and an exclusive right turn lane. Also, to widen the westbound approach on Olympic Boulevard and re-stripe the approach, which currently provides an exclusive left turn lane, two through lanes, and a shared through/right turn lane, to provide an exclusive left turn lane, three through lanes, and an exclusive right turn lane. In addition, lengthen the existing northbound left turn on Figueroa Street. These measures would fully mitigate the Saturday evening peak hour impact, reducing the V/C ratio from 0.778, LOS C to 0.656, LOS B. In the P.M. peak period, they would partially mitigate the impact and would reduce the V/C ratio from 0.993, LOS E, to 0.863, LOS D, although a significant impact would remain.

7. Grand Avenue & 11<sup>th</sup> Street. The Project would cause a significant impact at this intersection in the P.M. peak hour, increasing the V/C ratio from 0.591, LOS A to 0.704, LOS C. The proposed mitigation measure is to re-stripe the westbound approach on 11<sup>th</sup> Street from one shared left/through lane and one exclusive through lane, to provide one exclusive left turn lane, and two through lanes. This measure would fully mitigate the impact at this location. This would require removing on-street parking on 11<sup>th</sup> Street between Grand Avenue and the alley east of the intersection (approximately 12 spaces). This would not be a significant impact due to the abundance of off-street parking in the immediate area.

**(d) Neighborhood Protection**

As discussed above, no significant traffic or parking impacts are expected in the residential neighborhood to the west of the Harbor Freeway. However, because there remains the potential for such impacts to occur on an occasional basis, the Project Applicant proposes certain actions to ensure the neighborhood is protected against such occurrences.

Firstly, many elements of the proposed mitigation program are designed to keep traffic on the major arterials and away from residential streets in the neighborhoods. There are a series of improvements to enhance capacity on Olympic Boulevard between Cherry Street and Flower Street, for example, adding turn lanes into the “front door” of the Project. On the other hand, street widening and/or capacity enhancement measures are not recommended on 11<sup>th</sup> Street due to a desire to make this street a more pedestrian-oriented environment, and to discourage through traffic on 11<sup>th</sup> Street. In addition, the following measure is recommended:

8. The Applicant shall fund up to \$100,000 for studies, evaluations, and implementation of a Neighborhood Traffic Management Plan, if necessary. Such actions would be carried out by or under the direction of LADOT, with the participation of the Applicant. The Applicant would post a bond for the \$100,000

and monies would be released as a plan or individual measures are agreed upon and implemented. After a period of three years from opening of the Project, the bond would be terminated and/or any unused monies returned to the Applicant. This program would include both traffic management measures, as well as the implementation of any residential permit parking district programs requested by the neighborhoods and approved by LADOT.

**(e) General Mitigation Measures**

In addition to the measures identified above that will directly mitigate and/or avoid significant impacts, the following general mitigation measures will be implemented, which will help traffic flow in the area and enhance the operations of the impacted intersections.

9. The Applicant shall enhance connections and linkages to transit. This will particularly include physical linkages to the Metro Blue Line Station at Flower Street/Pico Boulevard, as well as directional signage to bus and rail lines, and the provision of landscaped bus stops with passenger amenities such as benches, shaded areas, and electronic real-time transit information.
10. The Applicant will install six new bus shelters throughout the project area, at locations to be agreed between the Applicant, LADOT, and LACMTA. These will be City standard bus shelters at a minimum, although the Applicant may modify the design to fit in with the overall urban design/streetscape of the Project with the approval of the City.
11. The Applicant will provide up to two transit information kiosks on-site (one on the Olympic properties and one on the Figueroa properties) for the purpose of providing information about the available transit in the area, and of dispensing tickets/passes, if feasible.
12. The Applicant will install 30-foot wide crosswalks at Figueroa Street/Olympic Boulevard, Figueroa Street/Pico Boulevard, 12<sup>th</sup> Street/Flower Street, and Pico Boulevard/Flower Street, where and as feasible.
13. The Applicant shall initiate and maintain a transportation demand management program that will actively promote the use of transit and rideshare, including providing Project employees and visitors with transit and rideshare information.
14. The Applicant shall provide off-site parking for employees (to the north, east, and south of the Project) along with shuttle bus service from parking locations to the Project.

15. The Applicant shall provide fixed signage on access/egress corridors to the Project to help direct inbound traffic to parking facilities, and outbound traffic to arterials and freeway ramps, up to a total of \$25,000.
16. The Applicant shall participate in providing up to three additional changeable message signs (CMS), if necessary, on the surface street system in the Project area, that will be linked into the existing Traffic Operations Center (TOC), that will help direct traffic and ensure smooth traffic flows during Convention Center and STAPLES Center events and during closures of 11<sup>th</sup> Street.
17. The Applicant will participate with Caltrans to provide one additional changeable message sign (CMS) on the freeway mainline system, if Caltrans determines it to be necessary or desirable.
18. The Applicant will coordinate with Caltrans and LADOT to develop fixed and changeable signage programs to direct traffic to utilize the various different freeway off-ramps in the Project area, where necessary.
19. The Applicant shall participate in the existing South Park Event Parking & Circulation Management Plan, and the ongoing traffic management activities coordinated by the South Park Event Coordinating Committee.

**(f) Closure of 11<sup>th</sup> Street**

In order to facilitate the closing of 11<sup>th</sup> Street between Georgia Street and Figueroa Street, on a regular basis outside the morning and evening peak periods, the following measure is recommended:

20. Develop a Traffic Control Plan, requiring LADOT approval, prior to completion and public use of the plaza to the north of 11<sup>th</sup> Street. Among the potential measures that could be included in the plan are the following (subject to the approval of LADOT):
  - Implement temporary traffic barriers or pop-up bollards on 11<sup>th</sup> Street west of Figueroa Street and east of Georgia Street to prevent traffic entering 11<sup>th</sup> Street between Georgia and Figueroa Streets during closure periods.
  - Add electronic signs to signal poles and signal mast arms at the intersections of 11<sup>th</sup> Street/Figueroa Street and 11<sup>th</sup> Street/Georgia Street, to indicate “No Entry”, “Turn Left”, and “Turn Right” during street closures.

- Add changeable message signs at locations to be determined by LADOT, advising motorists of alternate routes to 11<sup>th</sup> Street during street closures. Such signs would be located in the immediate vicinity of the block of 11<sup>th</sup> Street to be closed, at the following intersections:
  - 11<sup>th</sup> Street & Figueroa Street
  - Olympic Boulevard & Figueroa Street
  - Olympic Boulevard & Georgia Street
  - 11<sup>th</sup> Street & Georgia Street
- Add similar signs on the street approaches to the block of 11<sup>th</sup> Street to be closed to give motorists advance warning and information of alternate routes, such as at the following locations:
  - 11<sup>th</sup> Street, east of Flower Street
  - 11th Street, east of Olive Street
  - Cherry Street, south of 12<sup>th</sup> Street
- If necessary, provide additional temporary measures, such as coning temporary traffic lanes, at the following locations:
  - Olympic Boulevard & Figueroa Street
  - Olympic Boulevard & Georgia Street
  - 11th Street & Georgia Street
  - 11<sup>th</sup> Street & Figueroa Street

**d. ADVERSE EFFECTS**

**(1) Construction**

The temporary full closure of 12<sup>th</sup> Street during street and utility realignment would cause a significant, unavoidable traffic impact.

**(2) Operation**

The analysis identified Project-related significant traffic impacts at 17 locations in the weekday P.M. peak hour. The physical mitigation measures identified would eliminate two of these significant impacts and reduce the impact at one additional location. Significant impacts would remain at 15 locations, although only two locations would operate at LOS E. The remaining 13 locations would continue to operate at satisfactory conditions, with six locations operating at LOS C

and seven locations operating at LOS D. Significant impacts would remain at the following locations in the P.M. peak hour:

- Blaine Street and 11<sup>th</sup> Street (LOS D)
- Georgia Street and Olympic Boulevard (LOS C)
- Francisco Street and 9<sup>th</sup> Street (LOS D)
- Francisco Street and Olympic Boulevard (LOS C)
- Figueroa Street and 8<sup>th</sup> Street (LOS D)
- Figueroa Street and 9<sup>th</sup> Street (LOS D)
- Figueroa Street and Olympic Boulevard (LOS D)
- Figueroa Street and 11<sup>th</sup> Street (LOS E)
- Figueroa Street and Pico Boulevard (LOS C)
- Flower Street and 9th Street (LOS C)
- Flower Street and Olympic Boulevard (LOS E)
- Flower Street and 11th Street (LOS C)
- Flower Street and Pico Boulevard (LOS D)
- Flower Street and 7<sup>th</sup> Street (LOS D)
- Flower Street and 9th Street (LOS C)

During the Saturday evening peak hour, the impact analysis identified significant traffic impacts at 10 locations. The physical mitigation measures identified would eliminate two of these impacts. Significant impacts would remain at eight locations, which would all operate at satisfactory conditions (five locations at LOS C, and three locations at LOS D). Significant impacts would remain at the following locations in the Saturday evening peak hour:

- Cherry Street and 11<sup>th</sup> Street (LOS D)
- Georgia Street and Olympic Boulevard (LOS C)
- Georgia Street and 11<sup>th</sup> Street (LOS D)
- Francisco Street and Olympic Boulevard (LOS C)
- Figueroa Street and 11th Street (LOS D)
- Flower Street and 9th Street (LOS C)
- Flower Street and Olympic Boulevard (LOS C)
- Flower Street and 11th Street (LOS C)

The feasibility of physical mitigation measures was investigated for all locations where it was determined there would be a significant impact with the project. At a number of locations, no feasible physical mitigation was found, usually because intersection approaches have already been striped and signalized to the maximum number of lanes available and/or to the optimal lane

configuration, or because it was not considered desirable to change signal phasing/operations, to reduce sidewalk widths, or because right-of-way acquisition was not feasible.

Physical mitigation measures (such as roadway widening or restriping for additional right turn lanes) would degrade the pedestrian walking and safety environment, and would enhance roadway capacity in an area where substantial roadway capacity already exists, as shown by the forecast LOS C and LOS D conditions at many locations. In addition, further roadway widening could encourage additional auto trips, less use of transit, and potentially could lead to traffic intrusion into the residential neighborhoods to the west of the Harbor Freeway.

The following summarizes conditions at locations where the inclusion of mitigation measures was deemed to be infeasible.

#### **Cherry Street & 11<sup>th</sup> Street**

The Project would cause a significant traffic impact at this location in the Saturday evening peak hour, changing the V/C ratio from 0.724, LOS C to 0.828, LOS D. This intersection was significantly improved as part of the STAPLES Center project, including the addition of Cherry Street to the north, lane re-striping, and addition of signage. No further feasible mitigation measure has been identified for this location. This would remain a significant impact, although LOS D would remain an acceptable operating condition.

#### **Georgia Street & 11<sup>th</sup> Street**

The Project would cause a significant impact at this location in the Saturday evening peak hour, increasing the V/C ratio from 0.479, LOS A to 0.834, LOS D. Further street widening is not proposed as this would be contrary to the objective of enhancing the pedestrian environment. A potential mitigation measure to re-stripe the westbound approach to add a shared through/right lane was rejected due to the increased pedestrian conflicts that would be caused. This impact would therefore remain significant.

#### **Francisco Street & 9<sup>th</sup> Street**

The Project would have a significant impact at this intersection in the PM peak hour, changing the V/C ratio of 0.791 and LOS C without the Project to 0.818 and LOS D with the Project, although LOS D would be an acceptable operating condition. While the analysis included the planned development of the adjacent Metropolis project, it did not include the planned mitigation measure for that project to widen Francisco Street and reconfigure the southbound approach from the current one left turn lane to the planned two left turn lanes. With this

improvement in place there would be no significant impact with the Project. For this reason, no further mitigation was identified at this location.

### **Figueroa Street & 11<sup>th</sup> Street**

The Project would cause a significant impact at this intersection in both the PM peak hour and the Saturday evening peak hour. The PM peak hour V/C ratio would increase from 0.792, LOS C to 0.906, LOS E, while the Saturday evening peak hour V/C ratio would increase from 0.619, LOS B to 0.818, LOS D.

Part of the Project design is to provide for a pedestrian-oriented environment along 11<sup>th</sup> Street, between the Project and STAPLES Center and the Los Angeles Convention and Exhibition Center, to the maximum extent possible. Roadway widening would not be compatible with this goal as it would degrade the pedestrian environment (longer crosswalks, narrower sidewalks, etc.). Further, this intersection is currently striped for optimal lane configurations on each street approach, so no improvement can be gained through re-striping. For these reasons, no physical mitigation measures are recommended for this intersection. It is proposed that the Project provide a signing program (both on the public street system and in the Project parking garages) to encourage traffic to use Olympic Boulevard and Pico Boulevard rather than 11<sup>th</sup> Street. This would improve traffic operations at this intersection but would not necessarily mitigate the impacts, so for the purposes of this analysis it is assumed that a significant impact would remain at this location during both the PM peak hour and the Saturday evening peak hour.

### **Flower Street & Olympic Boulevard**

The Project would cause a significant impact at this intersection in both the PM peak hour and the Saturday evening peak hour. The PM peak hour V/C ratio would increase from 0.771, LOS C to 0.924, LOS E, while the Saturday evening peak hour V/C ratio would increase from 0.556, LOS A to 0.771, LOS C. Further street widening is not proposed as this would be contrary to the objective of enhancing the pedestrian environment. A potential mitigation measure to re-stripe the southbound approach to add a shared through/right lane was rejected due to the increased pedestrian conflicts that would be caused. This impact would therefore remain significant.

While no feasible mitigation could be identified at these locations, and therefore significant impacts would remain, it will be noted that the resultant LOS is in all cases LOS C or LOS D, which would still be acceptable operating conditions, and that in numerous instances the actual LOS would not change with the Project. The additional mitigation measures identified should help improve traffic flow and operating conditions at those locations where feasible physical mitigations were not identified.

While significant impacts were identified with respect to freeway mainline operations at two CMP analysis locations, no feasible physical mitigation measures are available within the confines of a Project specific analysis. There is no capacity within the existing freeway rights-of-way to restripe and the number of travel lanes are already maximized. It is not feasible to obtain additional right-of-way for widening because of the existing physical constraints and adjacent land uses in the downtown area.

### **Relationship to South Park Event Parking & Circulation Management Plan**

The traffic and parking conditions in the Project area are coordinated through the *South Park Event Parking and Circulation Management Plan (PCMP)*. The *PCMP* was developed to manage and coordinate the varying traffic and parking conditions caused by the changes in activity levels at STAPLES Center and the Los Angeles Convention and Exhibition Center.

As one of the visitor-generating venues in the South Park area, the Project would participate in the *PCMP* in order to assist in accommodating both traffic and parking demand in the area.

The *PCMP* includes a number of components that would be important to Project visitors:

- South Park Event Coordinating Committee
- South Park Traffic Management Center
  - Closed Circuit Television Coverage
  - Upgraded Traffic Signal Control
- Visitor Information Program
  - Freeway and Surface Street Changeable Message Signs
  - Highway Advisory Radio
- Traffic Control Staff
  - LAPD Pedestrian Control
  - LAPD Traffic Control
  - LADOT Traffic Control Officers

The South Park Event Coordinating Committee is made up of representatives of the area venues and the agencies that have responsibility for the control of traffic in the area. The Committee meets weekly during the peak activity season and on an as-needed basis (biweekly or monthly) during the remainder of the year. The venue operators forecast activity levels for the upcoming period based on scheduled events and bookings, and the Committee then schedules an appropriate traffic/parking plan based on the projected activity level.

The Project would participate in the Committee meetings so that the variations in the traffic and parking demand at the Project can be factored into the mix. Ticket sales for the theater and

scheduled activity at the hotel banquet facility will most likely be the Project components that would have the most influence on the Committee choice of plan levels.

The South Park Traffic Management Center is the control center for the implementation of the various traffic and parking management plans in the area. Based on the plan levels selected by the Committee, the Traffic Management Center is activated. At the present time, the Management Center is staffed for the more active event levels. It is not expected that the South Park Traffic Management Center would be activated and staffed based on the activity at the Project alone. However, the Management Center would assist in coordinating the traffic and parking for the venue as a part of the overall demand patterns in the area.

The Management Center has a number of tools at its disposal to assist visitors to the area. The *PCMP* includes a program to upgrade the traffic signals in the South Park district to make them more responsive to the varying traffic patterns generated by the event traffic in the area. The beneficial effects of the upgraded signal system will be available to the visitors to the Project whether the Management Center is open or not. Closed circuit television allows the Management Center to view the key approach routes to the area and to advise incoming motorists as to the best streets to use. This information can be disseminated to incoming visitors via the changeable message signs and/or the highway advisory radio.

As parking lots and structures in the area fill, the status of parking availability is relayed to the engineers in the Management Center and the information can be relayed to incoming visitors. The parking supply for the Project would be included in the managed supply in the area so that unused Project parking could be made available to the incoming area visitors.

Traffic control staff is deployed for the busier events in the South Park area. Again, it is not expected that traffic control staff (LAPD or LADOT staff) would be deployed for crowds at the Project only. However, traffic control staff deployed for activities at STAPLES Center and/or the Los Angeles Convention and Exhibition Center would also control traffic and pedestrian activity generated by the Project visitors.

By joining the *PCMP*, the Project will add to the managed parking supply available to visitors to the area. The traffic generated by the Project will be treated as part of an overall area wide managed program, taking advantage of infrastructure improvements and city-owned parking facilities that would not be available for visitor traffic in any other area of the City.

**e. CUMULATIVE IMPACTS**

Cumulative effects of the traffic from ambient growth and related projects, as described in Section III.B, Cumulative Development of this Draft EIR, have been incorporated into the analysis described above. Consequently, impacts of cumulative growth are already incorporated into the traffic model and are equivalent to those indicated for the Future Without Project conditions in Table 39. In the absence of the Project, without considering mitigation measures that might be implemented by related Projects, future traffic conditions at study intersections would result in a decline of service at 17 of 40 intersections during the weekday P.M. peak hour and eight of 40 intersections during the Saturday evening peak hour. Mitigation measures for future projects, which contribute to cumulative traffic growth at these intersections, would be expected to be implemented by these projects in coordination with LADOT.

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**IV. ENVIRONMENTAL IMPACT ANALYSIS**  
**F. TRANSPORTATION/CIRCULATION**  
**2. PARKING**

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This section is based upon the technical report, *L.A. Sports & Entertainment District EIR Traffic Study*, prepared by The Mobility Group with Kaku Associates, dated December 2000, which analyzes the potential impact of the Project on the local parking supply. This study is presented in Appendix E of this Draft EIR.

**a. ENVIRONMENTAL SETTING**

The Project area is currently served by a large number of parking facilities including those operated by STAPLES Center and the Convention Center, as well as a large number of other public and private parking lots. The Convention Center provides approximately 5,100 on-site parking spaces. These spaces are divided into four major areas: the West Hall which provides approximately 1,900 spaces, the South Hall (1,200 spaces), the Cherry Street Garage (870 spaces), and the Venice Boulevard Garage (1,120 spaces). For the majority of events held at the Convention Center, the on-site parking supply provided is more than sufficient to meet the parking demand created by the event. During very large events (e.g. the Auto Show), off-site parking occurs, utilizing off-street lots in the area as well as the Grand Avenue Garage at Grand Avenue and 17<sup>th</sup> Street (which also operates a shuttle connection).

In addition to STAPLES Center and the Convention Center parking facilities, there are several privately owned off-street parking facilities within the area that provide additional supply. Even during concurrent events, the existing parking supply in the vicinity of the Project is more than adequate. Not all of this parking supply is utilized, and significant event parking activity does not occur west of the Harbor Freeway. During times when there are not any events, there is a large unused parking supply.

The Project site currently consists primarily of paved surface parking lots. These surface parking lots are used for STAPLES Center parking. The number of parking spaces within these lots, by block, is shown in Table 45 on page 284. As shown, there are 3,249 surface parking spaces on the Project site. Of the total 3,249 spaces, approximately 2,774 spaces are reserved for STAPLES Center season/premier ticket holders, and the remaining 475 spaces are available to the general public.

The existing parking supply in the vicinity of the proposed Project includes the parking that currently exists on the Project site, the parking for STAPLES Center and the Los Angeles

Table 45

**PROJECT SITE EXISTING SURFACE PARKING SPACES**

| <b>Block</b>                | <b>Existing Parking Spaces</b> |
|-----------------------------|--------------------------------|
| Olympic West Properties     | 884                            |
| Olympic East Properties     | 1,190                          |
| Olympic North Properties    | 185                            |
| Figueroa North Properties   | 148                            |
| Figueroa Central Properties | 367                            |
| Figueroa South Properties   | 475                            |
| <b>Total</b>                | <b>3,249</b>                   |

Source: The Mobility Group/Kaku Associates, December 2000.

Convention and Exhibition Center, and the private parking in the area. Of the 5,000 parking spaces the Convention Center currently provides, up to 3,100 spaces are made available to events at STAPLES Center when there are no event conflicts with Convention Center activities. In addition, the area bounded by 7<sup>th</sup> Street to the north, Grand Avenue to the east, the Santa Monica Freeway to the south and the Harbor Freeway to the west provides 1,000 on-street curb parking spaces (although many of these are restricted during peak access hours) and 18,450 off-street commercial parking spaces.

## **b. PROJECT IMPACT**

### **(1) Significance Thresholds/Methodologies**

For the purposes of this EIR, the Project would be considered to have a significant impact with regard to parking if the parking supply provided by the Project, either on-site or off-site by covenant per standard City procedures, did not meet the number of spaces required by the *Zoning Code*.

The *Zoning Code* allows the parking demands of mixed-use projects to be evaluated by analyzing the shared parking aspects of the development. A separate analysis was conducted to assess the estimated parking demand for the Project. This analysis included an estimate of parking demand for each of the Project land uses for a typical weekday and for a Saturday during the peak month of the year for Project parking demand. The analysis also addressed parking demand on an hour-by-hour basis throughout the day.

Shared parking recognizes that parking spaces can be used to serve two or more individual land uses without conflict or encroachment. The shared parking phenomenon has long been

observed in central business districts, suburban community districts, and other areas where land uses are combined. Shared parking is really the result of two conditions:

1. Variations of the peak accumulation of parked vehicles occur because of time differences in the activity patterns of adjacent or nearby land uses (by hour, by day, and by season). For example, office employees can use a parking facility during the day and the same parking can serve patrons of an adjacent theater at night.
2. There are clearly relationships among land use activities in a mixed-use development that result in people visiting two or more land uses from a single automobile trip to a given mixed-use development project.

The peak parking demand ratios used for each land use are shown in Table 47 on page 286.

The analysis assumed a certain amount of transit use to the Project, in that 25 percent of the office workers would arrive by transit (based on empirical data for office mode split in downtown Los Angeles). Other uses would see 5 percent to 20 percent transit usage. An estimate was also made of internal capture of trips within the Project and adjacent uses. The critical time is when there are concurrent events occurring at STAPLES Center and the Convention Center. During these times, it was assumed that some of the patrons to the event(s) would eat a meal, shop or visit some of the entertainment venues in the Project as part of their trip. Thus, these customers would already be parked in STAPLES Center or Convention Center lots and would not have to be accommodated in the Project's parking supply.

The estimate of internal capture to the Project was based on the market surveys prepared for the Project. These surveys estimated that the retail and restaurant venues at the Project could expect as much as one-third of their traffic to be walk-in from the event visitor. Internal capture to other land uses within the Project was estimated to be in the five to 10 percent range for all uses except the Project's hotel banquet facilities where 25 percent of the guests were estimated to already be on-site (Convention Center visitors or Project hotel guests).

Finally, seasonal variations were also considered. A shared parking analysis was completed based on the peak month of the year. For this particular combination of land uses, the month of June was found to represent peak conditions. In June, all land uses on the site are experiencing peak demand of 100 percent of their annual peak except retail, which experiences 75 percent of its December demand. Thus for this Project, a June day represents the peak day of the year.

Project parking demand was also calculated for more typical day conditions. This typical day would likely occur in the January-March time period when the retail restaurant and entertainment land uses are at approximately 75 percent of their June peak. On a typical day, the

Table 47

**PROJECT PARKING DEMAND RATES**

| <b>Land Use</b>           | <b>Weekday Rate</b>      | <b>Weekend Rate</b>      |
|---------------------------|--------------------------|--------------------------|
| Office                    | 3.0 spaces/1,000 sq. ft. | 0.5 spaces/1,000 sq. ft. |
| Retail                    | 3.8 spaces/1,000 sq. ft. | 4.0 spaces/1,000 sq. ft. |
| Restaurant, Entertainment | 10 spaces/1,000 sq. ft.  | 10 spaces/1,000 sq. ft.  |
| Theater                   | 0.3 spaces/seat          | 0.3 spaces/seat          |
| Medical Office            | 5.0 spaces/1,000 sq. ft. | 5.0 spaces/1,000 sq. ft. |
| Health Club               | 5.0 spaces/1,000 sq. ft. | 5.0 spaces/1,000 sq. ft. |

*Source: The Mobility Group/Kaku Associates, December 2000.*

live theater is estimated to be at 50 percent of its peak and the hotel banquet space would only experience 33 percent of its peak demand.

Each shared parking analysis measured the parking demand on a weekday as well as on a Saturday. The primary variation on weekday versus weekend parking demand occurs because of the slightly higher restaurant and entertainment demand on weekend nights.

## **(2) Project Design Features**

The Project would provide a total of approximately 5,305 parking spaces in subterranean and above-grade parking garages at various locations on the Project site. These spaces would be distributed across the Project and/or by covenant in the vicinity of the Project, as shown in Table 49 on page 287. In addition, the Project would provide off-site employee parking. Employees would be connected to the Project site by a shuttle bus system, similar to the system currently used by STAPLES Center employees. During peak demand times, approximately 775 employee parking spaces would be provided.

A total of 2,200 of the 3,249 existing parking spaces on the Project site would be replaced by the parking structure on the Olympic West parcel. These will be independent of, and not included in the Project parking supply. During events at STAPLES Center, these 2,200 parking spaces would be reserved for the exclusive use of STAPLES Center patrons (premier/season ticket holders). At other times, these spaces would be available for general public use. The remaining 1,049 existing STAPLES Center parking spaces would not be replaced on the Project site. STAPLES Center patrons currently parking in those spaces would in the future park in one of the many other STAPLES Center parking lots or public parking lots to the east and north of STAPLES Center.

Table 49

**PROJECT PARKING**

| <b>Project Area</b> | <b>Number of Spaces</b> | <b>Configuration</b> |
|---------------------|-------------------------|----------------------|
| Olympic West        | 805                     | Above ground         |
| Olympic East        | 1,710                   | Below ground         |
| Olympic North       | 600                     | Above/below ground   |
| Figueroa North      | 150                     | Below ground         |
| Figueroa Central    | 1,340                   | Above/below ground   |
| Figueroa South      | 700                     | Above/below ground   |
| <b>Total</b>        | <b>5,305</b>            |                      |

Source: *The Mobility Group/Kaku Associates, December 2000.*

The Project would provide on-site parking generally in accordance with *Zoning Code* requirements, although to meet 100 percent of the anticipated peak parking demand, additional private and public parking supply in the vicinity of the Project would be utilized through covenants per standard City procedures. This dispersed approach to peak parking avoids the need to build an oversupply of Project-related parking and enhances pedestrian linkages by spreading peak parking demand among off-site parking lots to encourage walking into the Project site.

The Project proposes a parking strategy comprised of the following components:

- Coordinate the Project's parking supply with the management program already in place as part of the *South Park Event Parking and Circulation Management Plan (PCMP)*.
- Provide employee parking off-site connected to the Project by a shuttle bus system.
- Provide enough parking on-site to accommodate the visitor parking demand generated by the Project on a typical day.
- Arrange enough off-site parking to accommodate the overflow visitor parking demand on peak days.

This strategy has been successful in providing the parking for STAPLES Center in that a portion of the parking demand is met on-site and a portion is met in leased and private spaces off-site. As a result of the increased activity generated by STAPLES Center, many of these commercial spaces are open to the public for nighttime and weekend parking. It is expected that the private parking entrepreneurs would continue to market their supply to the visitors of the Project.

This strategy has resulted in increased pedestrian activity in the South Park Area of downtown Los Angeles, especially in the Figueroa Corridor between STAPLES Center and the Financial District to the north. The pedestrian activity has led to longer restaurant hours and increased business activity in the area.

### **(3) Analysis of Project Impacts**

#### **(a) Construction**

Construction impacts would typically include the need to provide parking for construction workers, temporary parking for visitors to the site (i.e., constructors, inspectors) and parking/staging for delivery/haul trucks. This demand is expected to be easily met by available space within the construction areas, and in various nearby lots owned by the Project Applicant that are empty during the day because STAPLES Center parking is typically not used during the daytime when construction activity will occur, and that could be made available for parking. It is considered unlikely that current STAPLES Center parking areas would be used for construction staging, unless those areas are no longer needed for replacement by structured or other parking facilities. Construction staging is expected to occur either on-site, or in areas vacated by replacement parking.

During construction, certain areas of parking for STAPLES Center will be removed from the overall supply. These will be primarily spaces for premier seat and season ticket holders. STAPLES Center will maintain adequate replacement of parking spaces prior to construction. For example, the first anticipated construction activity on the Olympic West Properties would be the parking garage, which will provide replacement parking for the existing surface lots on both the Olympic West and Olympic East Properties. As construction proceeds on the remainder of these properties, the surface parking will no longer be needed. Other than the removal and replacement of parking for STAPLES Center, no parking spaces in general public use will be removed by the Project. No parking impacts are therefore expected to either STAPLES Center or the Convention Center during construction.

#### **(b) Operation**

The *Zoning Code* sets forth requirements for parking by land use for development projects. The *Zoning Code* would require the Project to provide a total of 6,257 parking spaces, as shown in Table 51 on page 289.

Separate analyses of potential Project-related parking impacts were conducted for conditions with and without concurrent events at STAPLES Center and/or Convention Center. The Project-related parking demand under these two scenarios is summarized in Table 53 on page 290. With concurrent events, some of the visitors to the Project will also be people visiting either STAPLES

Table 51

## PROJECT ZONING CODE REQUIREMENTS

| Land Use             | Size    | Units | Zoning Code Requirements |                  |
|----------------------|---------|-------|--------------------------|------------------|
|                      |         |       | Rate                     | Number of Spaces |
| Hotel Rooms          | 1,800   | Rooms | *                        | 316              |
| Hotel Banquet        | 150,000 | GSF   | 1sp/100 sf               | 1,500            |
| Restaurants          | 215,000 | GSF   | 1sp/1000 sf              | 213 <sup>a</sup> |
| Retail               | 415,000 | GSF   | 1sp/1000 sf              | 409 <sup>b</sup> |
| Health Club          | 125,000 | GSF   | 1sp/1000 sf              | 125              |
| Office               | 165,000 | GSF   | 1sp/1000 sf              | 129 <sup>c</sup> |
| Medical Office       | 135,000 | GSF   | 1sp/1000 sf <sup>a</sup> | 135 <sup>d</sup> |
| Residential          | 800     | DU    | 1.25 sp/DU               | 1,000            |
| Entertainment:       |         |       |                          |                  |
| Live Theater         | 7,000   | Seats | 1sp/10 seats             | 700              |
| Night Club/Sports    |         |       |                          |                  |
| Bar/Museum           | 165,000 | GSF   | 1sp/100 sf               | 1,650            |
| Other                | 80,000  | GSF   | 1sp/1000 sf              | 80               |
| <b>Project Total</b> |         |       |                          | <b>6,257</b>     |

GSF=Gross Square Feet

DU=Dwelling Unit

\* Hotel parking rate requirement is one-half space per room for first 20 rooms, one-quarter space for next 20 rooms, one-sixth space per room for remaining rooms.

<sup>a</sup> Includes 5,000 sq.ft. in the CBD Traffic Impact Zone. See Note 1 below.

<sup>b</sup> Includes 15,000 sq.ft. in the CBD Traffic Impact Zone. See Note 1 below.

<sup>c</sup> Includes 90,000 sq.ft. in the CBD Traffic Impact Zone. See Note 1 below.

<sup>d</sup> Includes 135,000 sq.ft. in the CBD Traffic Impact Zone. See Note 1 below.

<sup>1</sup> The City Parking Code establishes the following parking rates for development within the CBD Traffic Impact Zone: 0.6sp/1000 sq.ft. maximum on-site plus 0.4spaces/1000 sq.ft. maximum off-site.

Source: The Mobility Group/Kaku Associates, December 2000.

Center and/or the Los Angeles Convention and Exhibition Center, and who will already be parked in STAPLES Center/Convention Center parking lots. These people will not need to park (again) in the Project and will walk to Project land uses. Without concurrent events, all visitors will come only for Project land uses and so the parking demand for the Project will be higher.

As can be seen in Table 53, if no concurrent events are underway, the peak parking demand at the Project site would be approximately 500 to 600 spaces higher. However, if no event was underway at STAPLES Center, an additional parking supply of 2,200 spaces would be available to Project visitors. These spaces to be located in a parking structure on the Olympic West block, would usually be reserved for visitors to STAPLES Center. However, if there were no events at STAPLES Center, these spaces would be available for the visitors to the Project. Therefore, the key time for the parking analysis is with concurrent events and without Project access to the 2,200

**Table 53**  
**PEAK PARKING DEMAND ESTIMATE**

| Scenario               | Peak Parking Demand |                     |
|------------------------|---------------------|---------------------|
|                        | Weekday (8-9 P.M.)  | Saturday (8-9 P.M.) |
| With Concurrent Events | 7,713 spaces        | 7,788 spaces        |
| No Concurrent Events   | 8,295 spaces        | 8,295 spaces        |

*Source: The Mobility Group/Kaku Associates, December 2000.*

STAPLES Center spaces on the Olympic West block. Therefore, the analysis focuses on this scenario.

As shown in Table 53, the peak Project-related parking demand would occur during the evening hours when 7,713 vehicles would park in the Project site on a weeknight from 8:00 P.M. to 9:00 P.M., and 7,788 vehicles would park on a Saturday night from 8:00 P.M. to 9:00 P.M. The parking demand for a typical day at the Project would range between 5,533 and 5,474 spaces, on a Friday and Saturday evening between 8:00 P.M. to 9:00 P.M., respectively. This represents a reduced parking demand of approximately 2,300 when compared to peak day conditions.

The parking program for the Project would also include an off-site employee parking program (similar to that currently operated for STAPLES Center) capable of accommodating 775 employee vehicles at peak times. These spaces would be connected to the site by a shuttle bus system to the extent that the spaces are located beyond a reasonable walking distance.

The remaining Project-related parking demand would be generated by visitors to the site. With visitor parking, it is necessary to provide a supply slightly in excess of the actual demand so that visitor search patterns do not become too frustrating for the customer. Assuming a five percent “oversupply” is provided to accommodate this search need, the Project would need to supply approximately 7,365 spaces if all visitor demand was to be met on-site for a peak day. For a typical day, the peak visitor supply would need to be approximately 5,200 spaces to fully accommodate visitor parking demand on-site.

The parking analysis is summarized in Table 55 on page 291, which shows the *Zoning Code* requirements, Project parking supply, peak parking demand, and typical parking demand. The analysis shows the parking numbers for the weekday and Saturday peak hours separately.

The overall Project parking supply of 6,260 spaces would meet the overall *Zoning Code* requirement of 6,257 spaces. Of this *Zoning Code* requirement, 5,305 spaces would be provided on-site and 955 spaces would be provided off-site by covenant per standard City procedures. These

Table 55

**PROJECT PARKING AND DEMAND SUMMARY**

|                                  | <b>Weekday</b><br><b>(8 P.M. to 9 P.M.)</b> | <b>Saturday</b><br><b>(8 P.M. to 9 P.M.)</b> |
|----------------------------------|---------------------------------------------|----------------------------------------------|
| <b>Zoning Code Requirement:</b>  | 6,257                                       | 6,257                                        |
| <b>Project Parking Supply:</b>   |                                             |                                              |
| On-site supply                   | 5,310                                       | 5,310                                        |
| Off-site supply                  | 950                                         | 950                                          |
| <b>Total Project Supply:</b>     | <b>6,260</b>                                | <b>6,260</b>                                 |
| <b>Typical Day Parking Need:</b> |                                             |                                              |
| Visitors                         | 5,212                                       | 5,153                                        |
| Employees                        | 569                                         | 566                                          |
| <b>Total Project Need:</b>       | <b>5,781</b>                                | <b>5,719</b>                                 |
| <b>Supply/Need Difference:</b>   |                                             |                                              |
| Total                            | + 479                                       | + 541                                        |
| On-Site                          | + 98                                        | + 157                                        |
| <b>Peak Day Parking Need:</b>    |                                             |                                              |
| Visitors <sup>a</sup>            | 7,294                                       | 7,363                                        |
| Employees                        | 767                                         | 775                                          |
| <b>Total Project Need:</b>       | <b>8,061</b>                                | <b>8,138</b>                                 |
| <b>Supply/Need Difference:</b>   |                                             |                                              |
| Total                            | - 1,801                                     | - 1,878                                      |
| On-site                          | - 1,984                                     | - 2,053                                      |

<sup>a</sup> Includes five percent excess for visitor search patterns.

Source: The Mobility Group/Kaku Associates, December 2000.

procedures for off-site spaces require that they are located within 1,500 feet to the north and/or east of the Project. The off-site spaces would be used primarily by employees. The parking need for the Project would be very similar between weekdays and Saturdays, with the peak time of demand occurring between 8:00 P.M. to 9:00 P.M. in both cases.

For a typical day, the total peak parking need of 5,781 spaces on a weekday would be accommodated by the total Project supply of 6,260 spaces with a slight surplus of 479 spaces. The on-site visitor need of 5,212 spaces would be accommodated by the on-site supply of 5,310 spaces.

For a peak day, the total peak parking need of 8,138 spaces on a Saturday would exceed the total Project parking supply of 6,260 spaces, a shortfall of 1,878 spaces. The on-site visitor need of 7,363 spaces would exceed the on-site supply of 5,310 spaces, a shortfall of 2,053 spaces. This excess of parking need would park off-site in the adjacent areas to the north and to the east, and

utilize the existing abundance of off-site parking supply in both public and private lots. This parking demand would most likely be met in leased or public spaces to the north and east of the Project site. Since the peak parking demand occurs at night, the office spaces to the north of the Project site are prime candidates for shared parking opportunities.

The Project parking supply when available would be added to the *South Park Event Parking and Circulation Management Plan* so that visitors to any of the area venues would be offered the greatest opportunity to find parking on the busiest event days.

During the first year of operation of STAPLES Center, the Applicant owned or leased approximately 8,900 spaces in the vicinity of the Project site. These spaces were built/leased to support STAPLES Center visitors. However, even on the night of a sellout sporting event (the highest parking demand condition for the venue), these 8,900 spaces are only about half full. Many STAPLES Center visitors are choosing to park off-site; in their reserved office spaces a few blocks from the Center; in less expensive private lots to the north and east of the site; or in on-street spaces within a few blocks to the north and east of the venue. Several of these lots are no longer provided due to lack of use. Currently STAPLES Center provides parking in 16 separate off-street lots that supply approximately 5,165 spaces. With the available parking supply at STAPLES Center, the Applicant controls more than enough parking spaces to meet the demand of the Project even on the peak days of demand. There is also substantial independently controlled additional parking supply to the north and east of the Project site.

It should also be noted that the analysis conservatively (worst case) assumed that the Convention Center parking supply would not be used, although this supply could be a resource if so desired. The Project parking plan is such that, as described above, the Project parking is separate to and independent of, the parking for STAPLES Center and the Convention Center. The Project Applicant anticipates operating the Project parking with a pricing structure that is affordable to visitors (to the restaurants, retail shops, etc.) through validations, but that discourages longer stay use by STAPLES Center visitors, who will park in separate designated lots. Those visitors who will park off-site will do so in the plentiful public parking supply that exists to the north and east of the Project, in a similar manner to current STAPLES Center patrons. For all of these reasons significant, off-site parking impacts are not anticipated. It is therefore concluded that the Project would conform to the requirements of the *Zoning Code* and that parking impacts would be less than significant.

The principal vehicular circulation to access/egress the Project will take place via the surrounding public street system. There will be no internal surface-level vehicular circulation, with one exception: a service road looping through the northwest corner of the Olympic East Properties from Francisco Street to Georgia Street, which would serve as passenger drop-off and loading for taxis, shuttle busses, and other private/tour busses; provide service access to the plaza retail, and restaurant uses; and create an intimate urban retail setting. Otherwise, vehicular circulation would

occur via the public street system to parking garages that would be integrated throughout the Project site to serve the various land uses.

The principal access routes to the Project site are expected to be Olympic Boulevard from the west (as well as 8<sup>th</sup> Street, Pico Boulevard, and Venice Boulevard); Figueroa Street, Flower Street, Hope Street, Grand Avenue, and Olive Street from the north and from the south; and Olympic Boulevard, 11<sup>th</sup> Street, 12<sup>th</sup> Street, and Pico Boulevard from the east.

Driveway access is proposed for parking for each project block/parcel, as follows:

- For the Olympic West parcel, access/egress would be provided on Cherry Street (right-in, right-out only), on Olympic Boulevard (right-in, right-out only), and on Georgia Street (full movement access).
- For the Olympic East parcel, access/egress would be provided on Olympic Boulevard opposite Francisco Street (full movement access), and on Georgia Street (full movement access).
- For the Olympic North parcel, access/egress would occur on both Georgia Street and Francisco Street (both full movement access).
- For the Figueroa North parcel, access/egress would occur on both Figueroa Street and Flower Street (both right-in, right-out only).
- For the Figueroa Central parcel, access/egress would be provided at 11<sup>th</sup> Street, Flower Street, and 12<sup>th</sup> Street (all right-in, right-out only).
- For the Figueroa South parcel, access/egress would be provided on both Figueroa Street and Flower Street (both right-in, right-out only).

These access locations have been identified to facilitate vehicular access to the Project from the main surface streets, and to minimize conflicts with pedestrians. For example, vehicular access to the Olympic East parcel would not be provided from 11<sup>th</sup> Street or from Figueroa Street, in order that the high pedestrian volumes on these block faces, both using the Project and utilizing STAPLES Center and the Convention Center, would not be disrupted. Similarly, no vehicular access would be provided to the Figueroa Central parcel from Figueroa Street, again so that anticipated high volumes of pedestrians would not be disrupted.

### **c. MITIGATION MEASURES**

Although no significant impacts are anticipated to occur, the following mitigation measures are recommended.

**(1) Construction**

1. The Applicant shall develop a Construction Management Plan, which shall provide for the coordination of construction areas and the replacement of STAPLES Center parking prior to commencing construction. During Project utility relocation, existing street parking shall be retained wherever possible.
2. As part of the Construction Management Plan, measures to minimize parking impacts to STAPLES Center and other land uses in the area shall be developed, (for example, the provision of permanent or temporary replacement parking). Delays in construction of the Project shall be avoided to the fullest possible extent.

**(2) Operation**

3. The Applicant shall provide employee parking off-site to the northeast or south of the Project site in leased and/or owned spaces. The employees would be transported to the Project site by a shuttle bus system similar to that currently used for STAPLES Center employees. The off-site employee parking program would accommodate approximately 550 daytime employee spaces and 775 nighttime employee spaces.
4. The Project shall participate in the South Park Event Coordinating Committee, to coordinate parking management issues.

**d. ADVERSE EFFECTS**

The Project would provide parking, both on-site and off-site by covenant as per standard City procedures, in accordance with the *Zoning Code*. Although no adverse effects to parking would occur, any potential impacts would be reduced further with the incorporation of recommended mitigation measures.

**e. CUMULATIVE IMPACTS**

The Project in combination with related projects would not result in any adverse impacts to parking. The related projects would be required, through *Los Angeles Municipal Code* requirements and mitigation measures required by environmental clearances, to include sufficient parking to accommodate their own parking demand. Although in some instances existing parking may be displaced by development, this is likely to be counterbalanced by the parking required for the proposed developments. In addition, some of the related project developments would include uses which might be economically influenced to open their parking facilities on nights and weekends to accommodate additional parking demand. No significant cumulative impacts to parking are anticipated.

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**IV. ENVIRONMENTAL IMPACT ANALYSIS**  
**F. TRANSPORTATION/CIRCULATION**  
**3. PEDESTRIAN SAFETY**

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This section is based upon the technical report, *L.A. Sports & Entertainment District EIR Traffic Study*, prepared by The Mobility Group with Kaku Associates, dated December 2000, which analyzes the potential impact of the Project on pedestrian safety. This study is provided in Appendix E of this Draft EIR.

**a. ENVIRONMENTAL SETTING**

Extensive pedestrian facilities exist in the vicinity of the Project site. Sidewalks are available on both sides of all of the public streets in the area, generally ranging in width from 10 feet to as much as 30 feet. Marked crosswalks are provided at all signalized intersections in the vicinity of the Project site. In addition, pedestrian controls (i.e., illuminated “Walk/Don’t Walk” signs) are provided at the signalized locations. The sidewalks on Figueroa Street between 9th Street (James Wood Boulevard) and Venice Boulevard range in widths from 10 feet to 30 feet. The sidewalks on 11<sup>th</sup> Street between Cherry Street and Flower Street range in widths from 10 feet to 20 feet. The Olympic Street sidewalks between Georgia Street and Flower Street range in widths from 13 feet to 15 feet. The sidewalks on Flower Street between 9<sup>th</sup> Street (James Wood Boulevard) and Venice Boulevard range in widths from nine feet to 22 feet.

During events at STAPLES Center and the Los Angeles Convention and Exhibition Center there is often high pedestrian activity in the Project area. Based on the location of the parking facilities there are a number of key pedestrian crossing locations. These are shown in Figure 41 on page 296 and include the intersections of Figueroa Street/11<sup>th</sup> Street, Figueroa Street/12<sup>th</sup> Street, and Figueroa Street/Pico Boulevard. The *South Park Event Parking and Circulation Management Plan (PCMP)* identifies several locations of high pedestrian activity throughout the Project area. As part of the implementation of the *PCMP*, some of the crosswalks close to the site have been widened. In addition, during an evening event at STAPLES Center, 11<sup>th</sup> Street is typically closed to vehicular traffic between Figueroa Street and Georgia Street at about 9:00 P.M. in order to facilitate exiting pedestrian flows. Also, LADOT traffic control officers are often utilized to assist in the safe movement of pedestrians during events. During very large events, LAPD personnel are also on duty to help manage pedestrian flow. The number of existing pedestrians using the sidewalk system adjacent to the Project blocks with no event underway at STAPLES Center or at the Los Angeles Convention and Exhibition Center was calculated for approximately 6:30 P.M. to 7:30 P.M. on a summer Saturday evening (“Background Conditions”).

**Figure 41      Principal Locations of Pedestrian Street Crossing Activity**

As shown in Table 57 on page 298, the existing sidewalk system accommodates the Background pedestrian volumes at level of service (LOS) A (the Background pedestrian volumes are identical for both Peak and Typical Day Conditions). This sidewalk system is able to accommodate Background Condition pedestrian levels as the sidewalk system was designed to handle crowds from STAPLES Center and the Convention Center. On an event day, Table 57 shows that the sidewalk system serving the venues operates at acceptable levels of service. The north-south streets all operate at LOS A or B. Most sections of the east-west sidewalk system operate at similar levels. Only the sections of 11<sup>th</sup> Street and 12<sup>th</sup> Street between Figueroa and Flower Streets operate at LOS C during the one-hour before an event.

## **b. ENVIRONMENTAL IMPACT**

### **(1) Significance Thresholds/Methodology**

The City of Los Angeles has not established a performance standard for sidewalk operation, nor has it adopted a definition of “significant impact” in the event that a project affects the performance of a sidewalk. If the City had a sidewalk performance standard similar to its standards for street and intersection performance, the sidewalk should operate at least in the Level of Service C to D range to be considered acceptable operation.

The capacity of the sidewalk system is evaluated under two conditions:

- Typical Day -- a condition that occurs when most of the Project parking can be accommodated on-site.
- Peak Day -- representing the busiest weekend days of the year when up to 2,000 Project vehicles park off-site.

In both cases, the conditions are measured on a Saturday evening peak hour during the one-hour time period before a STAPLES Center event, which is the time period of highest pedestrian activity.<sup>41</sup>

<sup>41</sup> *It is unlikely that the Convention Center would produce pedestrian volumes during the Saturday evening peak hour that would be comparable to the pedestrian flows to/from STAPLES Center during the pre-event hour. Therefore, STAPLES Center pedestrian flows would dictate the peak conditions generated by STAPLES Center and the Convention Center.*

Table 57

## PEDESTRIAN PLATOON LEVEL OF SERVICE RESULTS

| Street                                           | Sidewalk Side     | Background                |     | STAPLES/<br>Convention Center<br>Event |     | Project<br>(Peak)         |     | Project<br>(Average)      |     | Combined Venues<br>(Peak) |     | Combined Venues<br>(Average) |     |
|--------------------------------------------------|-------------------|---------------------------|-----|----------------------------------------|-----|---------------------------|-----|---------------------------|-----|---------------------------|-----|------------------------------|-----|
|                                                  |                   | Flow Rate<br>(ped/min/ft) | LOS | Flow Rate<br>(ped/min/ft)              | LOS | Flow Rate<br>(ped/min/ft) | LOS | Flow Rate<br>(ped/min/ft) | LOS | Flow Rate<br>(ped/min/ft) | LOS | Flow Rate<br>(ped/min/ft)    | LOS |
| Cherry (Olympic to 11 <sup>th</sup> )            | East              | 4.02                      | A   | 6.49                                   | B   | 4.28                      | A   | 4.16                      | A   | 6.78                      | B   | 6.65                         | B   |
|                                                  | West <sup>a</sup> |                           |     |                                        |     |                           |     |                           |     |                           |     |                              |     |
| Georgia (Olympic to 11 <sup>th</sup> )           | East              | 4.03                      | A   | 5.51                                   | A   | 5.06                      | A   | 4.69                      | A   | 6.57                      | B   | 6.20                         | B   |
|                                                  | West              | 4.03                      | A   | 5.02                                   | A   | 5.06                      | A   | 4.69                      | A   | 6.08                      | B   | 5.71                         | A   |
| Figueroa (9 <sup>th</sup> to Olympic)            | East              | 4.12                      | A   | 9.06                                   | B   | 5.49                      | A   | 4.25                      | A   | 10.55                     | B   | 9.31                         | B   |
|                                                  | West              | 4.10                      | A   | 10.40                                  | B   | 7.60                      | B   | 4.45                      | A   | 14.00                     | C   | 10.85                        | B   |
| Figueroa (Olympic to 11 <sup>th</sup> )          | East              | 4.12                      | A   | 9.06                                   | B   | 5.05                      | A   | 4.43                      | A   | 10.11                     | B   | 9.49                         | B   |
|                                                  | West              | 4.08                      | A   | 10.54                                  | B   | 5.78                      | A   | 4.97                      | A   | 12.32                     | C   | 11.51                        | C   |
| Figueroa (11 <sup>th</sup> to 12 <sup>th</sup> ) | East              | 4.08                      | A   | 5.69                                   | A   | 5.65                      | A   | 5.32                      | A   | 7.34                      | B   | 7.02                         | B   |
|                                                  | West              | 4.04                      | A   | 5.62                                   | A   | 5.27                      | A   | 4.87                      | A   | 6.89                      | B   | 6.50                         | B   |
| Figueroa (12 <sup>th</sup> to Pico)              | East              | 4.08                      | A   | 4.72                                   | A   | 5.92                      | A   | 5.35                      | A   | 6.64                      | B   | 6.07                         | B   |
|                                                  | West              | 4.06                      | A   | 6.77                                   | B   | 5.46                      | A   | 5.12                      | A   | 8.23                      | B   | 7.89                         | B   |
| Figueroa (Pico to Venice)                        | East              | 4.08                      | A   | 4.42                                   | A   | 4.45                      | A   | 4.12                      | A   | 4.87                      | A   | 4.53                         | A   |
|                                                  | West              | 4.12                      | A   | 6.59                                   | B   | 4.25                      | A   | 4.13                      | A   | 6.84                      | B   | 6.72                         | B   |
| Flower (9 <sup>th</sup> to Olympic)              | East              | 4.05                      | A   | 4.94                                   | A   | 4.30                      | A   | 4.08                      | A   | 5.24                      | A   | 5.01                         | A   |
|                                                  | West              | 4.06                      | A   | 5.54                                   | A   | 5.55                      | A   | 4.32                      | A   | 7.10                      | B   | 5.86                         | A   |
| Flower (Olympic to 11 <sup>th</sup> )            | East              | 4.04                      | A   | 4.77                                   | A   | 4.14                      | A   | 4.05                      | A   | 4.92                      | A   | 4.83                         | A   |
|                                                  | West              | 4.03                      | A   | 4.71                                   | A   | 4.27                      | A   | 4.10                      | A   | 4.98                      | A   | 4.81                         | A   |
| Flower (11 <sup>th</sup> to 12 <sup>th</sup> )   | East              | 4.06                      | A   | 6.39                                   | B   | 5.07                      | A   | 4.37                      | A   | 7.46                      | B   | 6.76                         | B   |
|                                                  | West              | 4.08                      | A   | 7.31                                   | B   | 7.15                      | B   | 5.69                      | A   | 10.45                     | B   | 9.00                         | B   |
| Flower (12 <sup>th</sup> to Pico)                | East              | 4.08                      | A   | 10.54                                  | B   | 6.73                      | B   | 4.63                      | A   | 13.27                     | C   | 11.17                        | C   |
|                                                  | West              | 4.06                      | A   | 6.69                                   | B   | 5.70                      | A   | 5.17                      | A   | 8.38                      | B   | 7.86                         | B   |
| Flower (Pico to Venice)                          | East              | 4.08                      | A   | 4.78                                   | A   | 4.47                      | A   | 4.12                      | A   | 5.26                      | A   | 4.91                         | A   |
|                                                  | West              | 4.08                      | A   | 5.37                                   | A   | 4.44                      | A   | 4.11                      | A   | 5.81                      | A   | 5.48                         | A   |
| Olympic (Georgia to Figueroa)                    | North             | 4.04                      | A   | 5.87                                   | A   | 5.51                      | A   | 4.60                      | A   | 7.38                      | B   | 6.47                         | B   |
|                                                  | South             | 4.04                      | A   | 7.27                                   | B   | 5.91                      | A   | 5.10                      | A   | 9.17                      | B   | 8.37                         | B   |
| Olympic (Figueroa to Flower)                     | North             | 4.08                      | A   | 4.72                                   | A   | 4.42                      | A   | 4.26                      | A   | 5.14                      | A   | 4.98                         | A   |
|                                                  | South             | 4.11                      | A   | 8.53                                   | B   | 4.82                      | A   | 4.38                      | A   | 9.34                      | B   | 8.90                         | B   |
| 11 <sup>th</sup> (Cherry to Georgia)             | North             | 4.04                      | A   | 5.33                                   | A   | 4.21                      | A   | 4.13                      | A   | 5.54                      | A   | 5.46                         | A   |
|                                                  | South             | 4.06                      | A   | 4.59                                   | A   | 4.34                      | A   | 4.21                      | A   | 4.93                      | A   | 4.80                         | A   |
| 11 <sup>th</sup> (Georgia to Figueroa)           | North             | 4.08                      | A   | 7.31                                   | B   | 6.63                      | B   | 5.42                      | A   | 9.94                      | B   | 8.73                         | B   |
|                                                  | South             | 4.06                      | A   | 9.15                                   | B   | 4.73                      | A   | 4.41                      | A   | 9.88                      | B   | 9.57                         | B   |
| 11 <sup>th</sup> (Figueroa to Flower)            | North             | 4.13                      | A   | 8.33                                   | B   | 6.34                      | B   | 5.29                      | A   | 10.67                     | B   | 9.62                         | B   |
|                                                  | South             | 4.15                      | A   | 11.91                                  | C   | 6.54                      | B   | 5.41                      | A   | 14.45                     | D   | 13.32                        | C   |
| 12 <sup>th</sup> (Figueroa to Flower)            | North             | 4.04                      | A   | 5.65                                   | A   | 5.29                      | A   | 4.89                      | A   | 6.95                      | B   | 6.54                         | B   |
|                                                  | South             | 4.06                      | A   | 11.47                                  | C   | 5.98                      | A   | 5.36                      | A   | 13.45                     | C   | 12.83                        | C   |
| Pico (Figueroa to Flower)                        | North             | 4.06                      | A   | 5.02                                   | A   | 4.89                      | A   | 4.41                      | A   | 5.91                      | A   | 5.43                         | A   |
|                                                  | South             | 4.13                      | A   | 4.65                                   | A   | 4.42                      | A   | 4.15                      | A   | 5.07                      | A   | 4.80                         | A   |

<sup>a</sup> There is no sidewalk on the west side of Cherry Street between Olympic Boulevard and 11<sup>th</sup> Street.

Source: The Mobility Group/Kaku Associates, December 2000.

The analysis is based on the methodology presented in the *Highway Capacity Manual*, Chapter 13 – Pedestrians.<sup>42</sup> The expected number of pedestrians in the peak hour is compared to the effective width of the sidewalk available to accommodate that pedestrian volume. The effective width of the sidewalk is calculated by reducing the actual width of the sidewalk by the effects of landscaping, utility poles, fences, adjacent buildings, and other considerations.

For this analysis, a sold-out sporting event was used as the design condition. A total of 20,000 visitors to STAPLES Center were assumed and it was assumed that, for worst-case analysis, 90 percent of the crowd would arrive in the one hour prior to the event. The *Highway Capacity Manual* requires that an estimate be made to determine the peak 15-minute pedestrian flow within the peak hour. This analysis assumes that 35 percent of the peak hour pedestrian flow would occur within the peak 15 minutes.

The Pedestrian Flow Rate (number of pedestrians per minute per foot of effective sidewalk) is calculated and compared in Table 59 on page 300 to determine the level of service of the sidewalk. This calculation measures the quality of the pedestrian flow along the sidewalk system. The *Highway Capacity Manual* also suggests that the effects of pedestrian platoons be calculated to measure this effect on pedestrian level of service. The platoon measurement takes into account the effects of traffic signals, transit facilities and other short-term fluctuations in the flow of pedestrians. Thus the analysis addressed both peak day and typical day conditions.

## **(2) Analysis of Project Impact**

### **(a) Project Design Features**

The Pedestrian Circulation Plan is discussed in Section II.C., Project Characteristics, of this Draft EIR.

### **(b) Construction**

Construction of the Project could have the potential to impact pedestrian movement in the immediate vicinity of the construction sites. Construction activities could result in temporary closure of sidewalks and disruption of existing pedestrian flow patterns from movement and parking of construction vehicles, primarily along Olympic Boulevard, 11<sup>th</sup> Street, 12<sup>th</sup> Street, Figueroa Street and Flower Street. Project-related construction could require temporary lane closures on surrounding streets, particularly during utility relocation activity, although no complete closure of any major streets is anticipated. These closures could temporarily reroute pedestrian access to

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<sup>42</sup> Transportation Research Board, *Highway Capacity Manual*, Washington, D.C., 1985.

Table 59

**PEDESTRIAN LEVEL OF SERVICE**

| <b>Level of Service</b> | <b>Pedestrian Flow Rate<br/>(peds/min/ft)</b> |
|-------------------------|-----------------------------------------------|
| A                       | $\geq 2$                                      |
| B                       | $\geq 7$                                      |
| C                       | $\geq 10$                                     |
| D                       | $\geq 15$                                     |
| E                       | $\geq 25$                                     |
| F                       | $> 25$                                        |

*Source: Highway Capacity Manual, Chapter 13 – Pedestrians.*

STAPLES Center and the Convention Center from the parking facilities, constituting a temporary, but significant, impact to pedestrian circulation.

Potential impacts to pedestrian safety could also occur from the movements of construction vehicles. Daily truck trips would be expected to occur on a given construction day associated with hauling activities, removing demolition debris and excavated earth from the site and returning empty for additional loads. Trips by construction workers to and from the site and miscellaneous deliveries, and support services, such as catering, inspections, would account for additional temporary vehicle trips during construction. Demolition and excavation activities generally occur during the early stages of construction. Although varying with the specific nature of the construction activity (e.g., demolition, excavation or concrete pouring), the truck activity is generally expected to be distributed fairly evenly throughout the work day. During certain activities (e.g., excavation), the truck traffic would be focused on the earlier portions of the work day, with a number of trucks arriving prior to the actual start of work.

It is anticipated that construction-related traffic would be largely freeway-oriented and would use the shortest routes from the Project site to minimize travel time and maximize ease of ingress and egress for the trucks. The movement of construction vehicles would have the potential to affect pedestrians living and working near the Project site, STAPLES Center, and the Convention Center. Haul trucks would also create noise impacts, which are discussed in Section IV.H, Noise, and are related to impacts on solid waste disposal facilities, which are discussed in Section IV.I.3, Solid Waste.

Since numerous alternative routes exist for pedestrians to access the Project site, STAPLES Center, and the Convention Center, and for residents adjacent to the Project site, and since any

disruptions to pedestrian movement would be temporary, potential impacts to these groups of people would be less than significant.

However, in addition to construction worker and truck traffic, construction activity associated with the Project could require temporary lane closures on West 11<sup>th</sup>, South Figueroa, Cherry, and Georgia Streets and Olympic Boulevard adjacent to the proposed Project site, particularly during utility relocation activity. These closures could temporarily disrupt traffic flow in this area and could affect some patrons attempting to access STAPLES Center and Convention Center parking facilities (see Section IV.F.1, Traffic). This would be a temporary, but less than significant impact upon those patrons who park to the north and east of STAPLES Center and the Convention Center and walk to the STAPLES Center and the Convention Center by way of 11<sup>th</sup> Street and Figueroa Street. After utility relocation is complete, complete lane closures are not expected to be required. However, short-term closures may be required on occasion throughout the remainder of the construction period.

### **(c) Operation**

Pedestrian volumes for the Project were broken into two segments. The first involves the Project visitors who park off-site and then walk to the venue. During peak day conditions, it was assumed that approximately 2,000 vehicles would park off-site. This estimate is consistent with the analysis presented in Section IV.F.2, Parking of this Draft EIR. At average auto occupancy of 2.5 persons per vehicle, a total of 5,000 people would travel on the sidewalk system between the Project and the off-site parking areas. The trip generation assumptions for the Project suggest that the peak turnover of the parking supply would be 50 percent (i.e. no more than 50 percent of the parking supply would enter or leave the site during one hour). Therefore, the peak pedestrian flow would be 2,500 pedestrians from the Project to the off-site parking spaces and another 2,500 people from the parking to the Project.

The second component of the Project pedestrian flow involves those Project visitors who park on one of the Project blocks and then visit the land uses on another of the Project blocks. It was assumed that 50 percent of the Project visitors would visit land uses on more than one block and that these 50 percent would be moving on the sidewalk system during the peak hour. This would mean that approximately 4,500 Project-generated pedestrians would be moving from block to block within the Project. The geographic distribution of the intra-Project pedestrian flow was based on the amount of parking and the amount of activity on each block of the Project.

During peak day conditions with a sold-out event at STAPLES Center (or a major consumer show at the Los Angeles Convention and Exhibition Center) and substantial off-site parking occurring for Project visitors, all of the north-south segments of the sidewalk system would operate at Level of Service C or better. All segments of the east-west system would operate at LOS A or B,

except the south sidewalk along 11<sup>th</sup> Street between Figueroa and Flower which would operate at LOS D and the same segment of 12<sup>th</sup> Street which would operate at LOS C. Average Day conditions would see the entire system operating at LOS C or better. As all of the intersections under both typical and peak day conditions would operate at acceptable levels of service, the pedestrian system is expected to accommodate the expected pedestrian volumes and no significant impact would occur.

All of the major intersections along the key pedestrian routes serving the Project are controlled by traffic signals. Given the good pedestrian levels of service described above, the pedestrian system should have no difficulty accommodating the pedestrian volumes safely through the traffic signals.

The current operation of STAPLES Center parking areas includes the provision of fences along the boundaries of the lots with openings in these fences directing people toward the signalized crosswalks. This strategy has been effective at reducing mid-block crossings, thus increasing pedestrian safety. A mitigation measure has been provided to ensure that, as these parking lots are replaced by Project development, the doors/entries to the buildings should orient pedestrian flow toward the crosswalks.

When Project visitors are added to STAPLES Center visitors, the pedestrian volumes increase and the temptation to “ignore the signal” may also increase. The most difficult auto/pedestrian conflict at a traffic signal occurs when right turning vehicles attempt to turn through a flow of pedestrians crossing on the “Walk” indication. During the peak event times at STAPLES Center and the Los Angeles Convention and Exhibition Center, the key intersections are controlled by LADOT Traffic Control Officers and by LAPD Police Officers. Figure 43 on page 303 shows the deployment of these personnel for large events at either of the venues. While the actual deployment may vary by event, or even by time period prior to or after the event, the presence of the Traffic Control Officers and the Police Officers serves to increase the safety of the pedestrians moving to/from the venues. This traffic control will be available to Project visitors during the busy hours before and after the events at STAPLES Center and the Los Angeles Convention and Exhibition Center.

The project description for the construction of STAPLES Center anticipated that the section of 11<sup>th</sup> Street from Georgia Street to Figueroa Street would be closed to traffic prior to and after an event at STAPLES Center. This closing would occur primarily to enhance pedestrian safety in accommodating the large volumes of pedestrians moving to/from the parking spaces to the north of the venue. Actual experience at STAPLES Center has shown that the street closure is needed only for about 20 to 30 minutes after an event. The flow of pedestrians prior to the event is spread out enough to allow the traffic signals to be able to adequately accommodate the pedestrian flow.

**Figure 43      LADOT Traffic Control Officer and LAPD Police Officer Deployment**

It is likely that the increase in pedestrian flow that would accompany the operation of the Project will result in the closure of the 11<sup>th</sup> Street section both prior to and after the events at STAPLES Center as discussed in Section II.C., Project Characteristics, of this Draft EIR. The orientation of the pedestrian flow (from the parking garage on the Olympic West Properties lot to STAPLES Center) and the increased pedestrian levels (Project visitors added to STAPLES Center and Convention Center visitors) could result in the need to increase the frequency and the duration of the 11<sup>th</sup> Street closure outside of regular peak periods.

The pedestrian mitigation program implemented by STAPLES Center has resulted in a pedestrian system that has enough capacity to accommodate the addition of the Project visitors at an acceptable level of service. Even on nights when the Project visitors are added to STAPLES Center visitors, the pedestrian system would have sufficient capacity to accommodate the expected pedestrian volumes.

From a safety standpoint, the signalized intersections controlling the key pedestrian corridors would provide safe intersection crossings. During the time periods prior to and after events at STAPLES Center and/or the Convention Center, LADOT Traffic Control Officers and LAPD Officers would control traffic and pedestrian flows to/from the event venues. Project visitors would be able to benefit from these traffic control personnel.

#### **c. MITIGATION MEASURES**

Although no significant impacts are anticipated to occur, the following mitigation measures are recommended.

1. The Applicant shall develop a Construction Management Plan, which shall provide for the coordination of construction areas and safe pedestrian movement throughout the Project area such that adequate and safe pedestrian access is maintained to STAPLES Center, the Convention Center and surrounding land uses during construction.

#### **d. ADVERSE EFFECTS**

A less than significant impact would occur prior to consideration of the recommended mitigation measures. With the application of the above mitigation measure, impacts relative to pedestrian safety during construction would be reduced further.

**e. CUMULATIVE IMPACTS**

Cumulative development in the Project area would increase urban activity in the Project area and correspondingly increase pedestrian activity. Hotel expansion would be expected to attract some STAPLES Center and Convention Center patrons, thus to a certain extent the pedestrian demand would not be increased, but merely displaced from vehicle trips that would otherwise be made. The retail and restaurant components of the cumulative development are expected to have some level of attraction independent of STAPLES Center and Convention Center. This would increase pedestrian demands in the immediate area and would likely capture some of the general increase in urban activity in the CBD area projected for the future, particularly associated with residential and commercial development in the South Park area. As discussed in Section IV.F.1, Traffic, future background traffic conditions are already accounted for in the Project traffic analysis. Additionally, Project Design Guidelines, existing pedestrian facilities and pedestrian safety programs associated with STAPLES Center would accommodate this additional demand in the vicinity of the Project. Thus, there would be no cumulative impact to pedestrian safety would occur.