

Technical Report  
LAX Master Plan EIS/EIR

**2a. On-Airport Surface Transportation**

January 2001

Prepared for:

Los Angeles World Airports  
U.S. Department of Transportation  
Federal Aviation Administration

Prepared by:

Leigh Fisher Associates

# LAX Master Plan

## **Update Existing Conditions to 1996 On-Airport Transportation**

June 9, 1998

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Los Angeles Department of Airports

Prepared by:

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# 1 Background

This report has been prepared as part of the LAX Master Plan and the preparation of an Environmental Impact Report/Environmental Impact Assessment (EIR/EIS). The LAX Master Plan is being developed in three phases. During Phase I, the existing conditions were established. During Phase II, requirements for the baseline (1994) and future years (2005, 2015) were established. The conceptual plans for future development were also prepared, screened, and selected. In Phase III, the selected conceptual plans will be evaluated using forecasts for the horizon years of 2005 and 2015 and the draft EIR/EIS will be prepared. Prior to evaluation of the selected conceptual plans and preparation of the EIR/EIS, the decision was made to update the existing baseline conditions to the year 1996.

The on-Airport ground transportation element of the Master Plan includes an assessment of traffic operations on Airport roadways and within the Airport boundaries. Section 6 of the April 19, 1996 *Master Plan Chapter II: Existing Conditions Working Paper* documents the on-Airport ground transportation conditions for the year 1995. That report contains an inventory of existing facilities and traffic characteristics and an assessment of existing conditions in 1995. Section 7 of the May 8, 1996, *Master Plan Chapter IV: Facility Requirements Report* documents the Airport Design Day baseline 1994 and future 2005 and 2015 requirements.

This report describes the updated existing baseline conditions for the on-Airport ground transportation element of the Master Plan. The purpose of this updated report is to: (1) describe new traffic surveys that were conducted at the Airport including traffic counts and locations and vehicle classifications survey results, (2) present the development of 1996 Airport trips and parking requirements, and (3) compare 1994 and 1996 conditions including traffic volumes, vehicle circulation and classification, traffic operations/deficiencies, roadways, curbsides, and parking.

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## 2 Traffic Survey Update

### 2.1 TRAFFIC SURVEY INFORMATION

Data were collected from Los Angeles World Airports (LAWA) Sources and field surveys. Data collected from LAWA included:

- ◆ Traffic count data for August 1996 collected with inductive loops embedded in Airport approach and departure lanes.
- ◆ Parking accumulation and entry/exit volumes for August 1996 and March 1997.

Traffic surveys were conducted at the Airport to update the data collected during Phase I—Inventory of the LAX Master Plan. Field surveys were conducted during Spring 1997, consistent with traffic surveys conducted in 1995. The information collected includes (1) traffic volumes on the passenger terminal and other Airport roadways in the Central Terminal Area (CTA), (2) vehicle classification data (i.e., number and type of commercial vehicles), (3) driveway volumes at selected privately-operated rental car facilities, (4) parking accumulation data for employee and privately operated parking facilities, and (5) driveway volumes on Imperial Highway, Aviation Boulevard, and Century Boulevard. The surveys included the following:

- ◆ **Automatic traffic recorder (ATR) machine counts (56 locations)**—ATR machine counts were conducted at the locations listed in Appendix A.
- ◆ **Two-day, peak period (8 hours) vehicle classification surveys (2 locations)**—Vehicle classification surveys were conducted to determine the number and type of commercial vehicles using Airport roadways. These surveys were conducted over a 2-day period for 8 hours per day at the upper and lower level terminal area “entrance” in front of Terminal 1 in the Central Terminal Area (CTA).
- ◆ **One-day, 4-hour vehicle occupancy counts (2 locations)**—Vehicle occupancy studies were conducted to indicate the number of passengers per vehicle entering and exiting the Airport. These surveys were conducted during a 4-hour period at the upper level terminal area “entrance” in front of Terminal 1 and at the lower level terminal area “exit” in front of Terminal 7 in the CTA.
- ◆ **One-day observed peak (6 hours) accumulation in privately operated parking lots (6 facilities)**—Observations of peak parking accumulation

and estimates of parking space occupancy at six privately operated parking facilities were conducted.

Wiltec Associates, the same firm that conducted the surveys in 1995, was responsible for training the required field staff and for conducting the surveys with assistance from Leigh Fisher Associates.

## 2.2 DATA SUMMARY

A summary of the vehicle classification survey is given in **Table 2.1**. This table shows the morning, midday, and evening vehicle classification splits as derived from data collected Thursday, June 5, Tuesday and June 10, 1997. As shown on **Table 2.1**, during the midday period from 11 a.m. to 2 p.m., 61.8% of vehicles on the lower level and 69.7% of vehicles on the upper level are private automobiles.

**Table 2.2** shows a summary of the average vehicle occupancy rate by type of service for three periods during the day. For example, during the morning period from 7 a.m. to 8 a.m., taxicabs on the upper level had an average vehicle occupancy of 2.32 persons per vehicle.

Results of the private parking accumulation survey are shown in **Table 2.3**. This table shows the percent of full capacity (how full the lots were) observed at each of the off-Airport parking suppliers at different times of the day on June 5, 1997. For example, the parking lots at Park One were 90% full at 6 a.m.

Table 2.3  
Los Angeles International Airport Master Plan

### PRIVATE PARKING ACCUMULATION - PERCENT OF FULL CAPACITY

Company Name	Percent of Capacity					
	6:00 AM	7:00 AM	11:00 AM	12:00 PM	8:00 PM	9:00 PM
Valet Air Park	75%	85%	90%	95%	95%	95%
Park One	90%	95%	95%	95%	100%	100%
Quik Park	70%	85%	90%	95%	85%	80%
Car Barn	50%	60%	65%	75%	80%	80%
Airport Valet	100%	100%	95%	95%	90%	90%
Auto Airporter	35%	45%	45%	45%	55%	55%

Source: Leigh Fisher Associates, From data collected June 5, 1997.

Table 2-1  
Los Angeles International Airport Master Plan

ON-AIRPORT VEHICLE CLASSIFICATION

Type of Service	Percent of total inbound traffic					
	Morning (a)		Midday (b)		Evening (c)	
	Lower level	Upper level	Lower level	Upper level	Lower level	Upper level
On-Airport Rental Car Vans	8.1%	3.4%	5.9%	4.1%	5.4%	3.6%
Off-Airport Rental Car Vans	3.5	1.6	3.1	2.5	2.2	1.6
Off-Airport Parking Shuttle	3.4	4.0	2.4	4.3	2.8	3.8
Hotel/Motel Vans	5.3	3.4	2.8	3.5	3.6	3.1
Door-to-door Shuttle	3.0	2.8	4.6	2.0	4.6	2.0
Scheduled Vans or Buses	3.2	0.9	1.5	1.0	1.3	1.2
Chauffeured Limousines	0.6	1.7	2.3	2.3	2.5	1.6
Charter Vans/Buses	0.7	0.6	1.4	0.8	0.6	0.3
Taxicabs	7.7	8.3	9.1	8.3	8.1	4.0
Van Nuys Flyaway Buses	0.4	0.4	0.3	0.4	0.1	0.3
Public Transit (MTA)	0.0	0.0	0.0	0.0	0.0	0.0
Interterminal Shuttles	1.8	0.9	1.9	0.6	1.1	1.1
On-Airport Parking Shuttle	0.6	0.1	0.1	0.1	0.1	0.1
Service and Delivery Vehicles	4.8	0.7	2.8	0.4	1.5	0.6
Private Automobiles	57.0	71.0	61.8	69.7	66.0	76.7
Other	0.0	0.3	0.0	0.2	0.0	0.1
	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Source: Leigh Fisher Associate, based on vehicle classification surveys conducted on the upper and lower levels of Terminal 1, June 1997.

- (a) 6 a.m. to 8:30 a.m.
- (b) 11 a.m. to 2 p.m.
- (c) 8 p.m. to 10:30 p.m.



Table 2-2  
Los Angeles International Airport Master Plan  
SUMMARY OF VEHICLE OCCUPANCY SURVEYS

Type of Service	Average Vehicle Occupancy					
	Morning (a)		Midday (b)		Evening (c)	
	Lower level	Upper level	Lower level	Upper level	Lower level	Upper level
On-Airport Rental Car Vans	1.10	4.63	1.30	5.30	1.25	4.84
Off-Airport Rental Car Vans	1.10	5.00	1.55	4.33	1.38	3.90
Off-Airport Parking Shuttle	1.41	4.94	1.12	4.86	1.31	4.36
Hotel/Motel Vans	1.16	4.15	1.16	4.07	1.35	3.05
Door-to-door shuttle	1.17	3.81	1.35	3.63	1.37	3.48
Scheduled Vans or Buses	1.48	6.50	1.60	6.53	9.38	3.56
Chauffeured Limousines	1.05	3.44	1.05	3.33	1.04	2.63
Taxicabs	1.03	2.32	1.05	2.39	1.11	2.13
Van Nuys Flyaway Buses	1.40	30.00	1.00	12.35	5.75	16.50
Airport Parking Shuttles	1.00	4.75	2.52	16.19	4.42	n.a.
Charter Buses	1.00	30.00	3.25	25.21	5.42	7.00
Public transit	n.a.	n.a.	n.a.	0.00	n.a.	n.a.
Other	3.33	2.00	1.75	n.a.	3.33	1.50

Source: Leigh Fisher Associates, based on vehicle occupancy surveys conducted by WILTEC in June 1997.

Lower level survey taken at Terminal 7; Upper level survey taken at Terminal 1.

- (a) 7 a.m. to 8 a.m.
- (b) 11 a.m. to 1 p.m.
- (c) 4 p.m. to 5 p.m.

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# 3 Development of Updated Airport Trip Volumes and Parking Requirements (1996)

## 3.1 UPDATED AIRPORT TRIP VOLUMES

Airport trip volumes were developed for the 1996 a.m. and p.m. commuter peak hours and the Airport peak hour. The a.m. peak hour was defined as a weekday from 8 a.m. to 9 a.m., the p.m. peak hour was defined as a weekday from 5 p.m. to 6 p.m., and the Airport peak hour was defined as a weekday from 11 a.m. to 12 p.m.

Trip volumes were developed for the Central Terminal Area as well as for several other on- and off-Airport locations including cargo and ancillary areas, parking lots, and rental car agencies. Volumes were further broken down by vehicle class.

Table 3.1 shows the summary of Airport-generated traffic volumes coming to and leaving the Airport for three peak hours in 1996/1997. Methodologies used for developing these traffic volumes are discussed in the following sections:

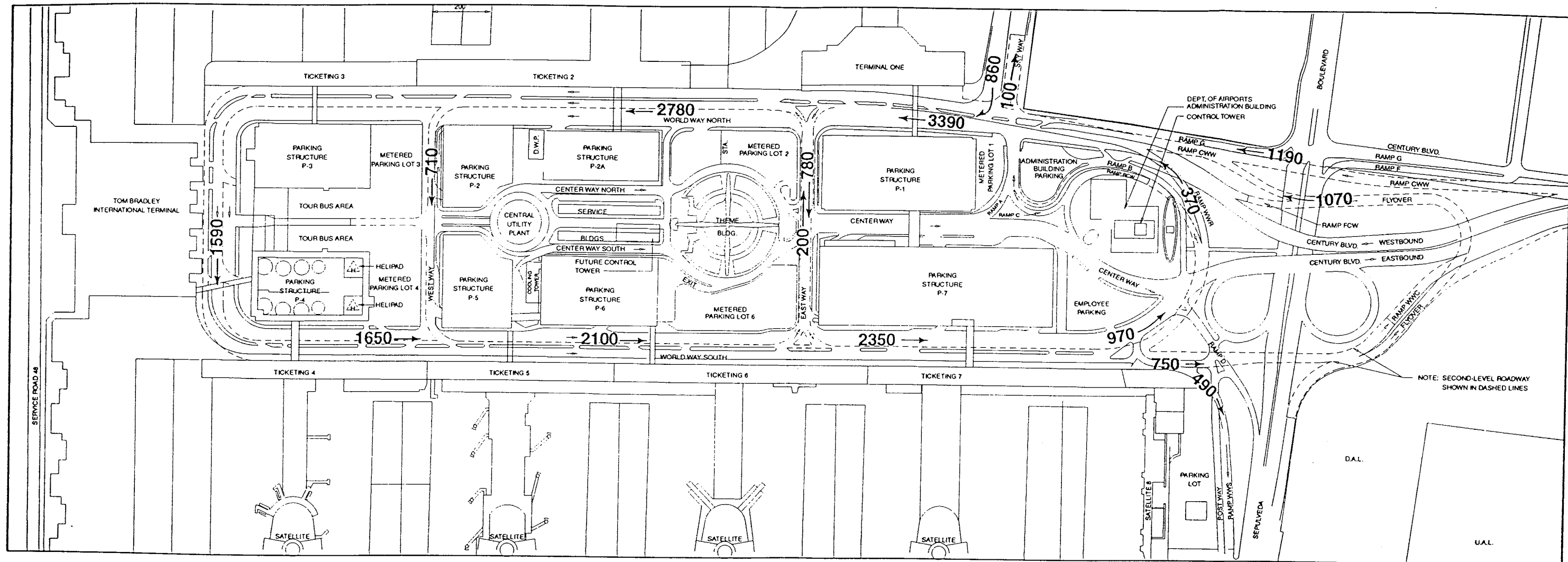
- ◆ **Central terminal area volumes**—Traffic volumes in the Central Terminal Area were calculated using updated originating and terminating passenger volumes for 1996 supplied by Landrum & Brown and 1994 terminal area volumes. Figures 3.1 through 3.4 identify the peak-hour volumes on the Central Terminal Area roadways during each of the respective peak hours.
- ◆ **Cargo area volumes**—1996 peak hour cargo area volumes were estimated using daily-tonnage-based trip generation rates described in the *On-Airport Existing Transportation Conditions Report*, January 1996. Daily tonnage was estimated from LAWA 'Volume of Air Traffic' reports for August 1996 and March 1997.
- ◆ **Ancillary area volumes**—1996 peak hour ancillary area volumes were estimated using acreage-based trip generation rates described in the *Facility Requirements Report*, March 1996. Ancillary acreage for 1996 was assumed to be the same as in 1994 (Source: Landrum & Brown, June 5, 1997).

**Table 3-1**  
**Los Angeles International Airport Master Plan**

**1994 AND 1996 PEAK-HOUR VOLUMES**

	Airport Peak Hour (11 a.m. to 12 p.m.)			
	1994		1996	
	Inbound	Outbound	Inbound	Outbound
Central Terminal Area (CTA)	5,455	4,871	6,043	5,396
On-Airport Cargo Facilities	919	900	998	978
LAWA Public Parking Lots	116	96	127	104
On-Airport Rental Car Agencies	848	825	940	915
LAWA Employee Parking Lots				
D and E	177	122	183	126
Ancillary Driveways	420	176	420	176
	AM Commuter Peak Hour (8 to 9 a.m.)			
	1994		1996	
	Inbound	Outbound	Inbound	Outbound
Central Terminal Area (CTA)	3,163	2,971	3,604	3,385
On-Airport Cargo Facilities	1,040	725	1,160	808
LAWA Public Parking Lots	102	47	112	50
On-Airport Rental Car Agencies	469	401	535	457
LAWA Employee Parking Lots				
D and E	219	64	227	66
Ancillary Driveways	684	380	684	380
	PM Commuter Peak Hour (5 to 6 p.m.)			
	1994		1996	
	Inbound	Outbound	Inbound	Outbound
Central Terminal Area (CTA)	2,759	3,873	3,225	4,530
On-Airport Cargo Facilities	939	806	1,282	899
LAWA Public Parking Lots	72	108	77	119
On-Airport Rental Car Agencies	439	451	514	527
LAWA Employee Parking Lots				
D and E	223	303	231	314
Ancillary Driveways	91	581	91	581

Source: Leigh Fisher Associates, June 1997.



**LEGEND**

**1870** Traffic volumes where indicated during Airport peak hour: 11 a.m.–12 p.m.

Prepared by: Leigh Fisher Associates using Los Angeles Department of Airports hourly traffic reports (August 11-17, 1996).

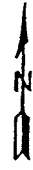
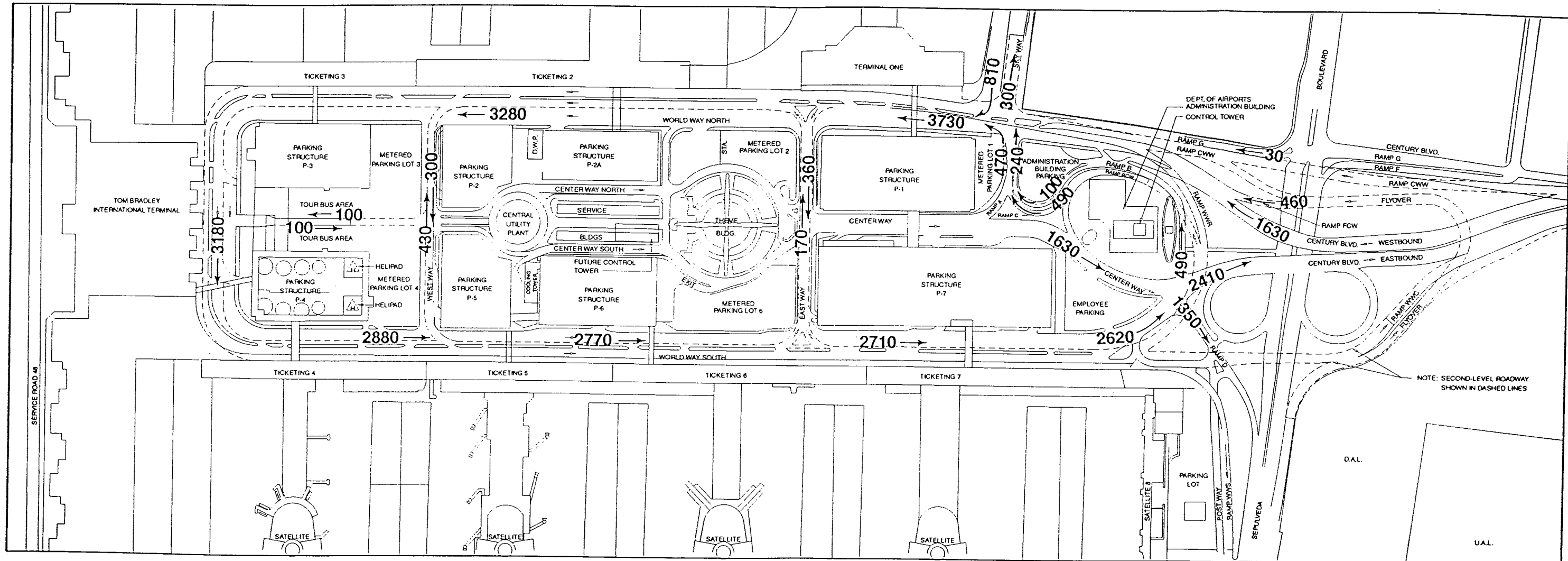


Figure 3.1  
**AUGUST 1996 AIRPORT PEAK-HOUR  
 TRAFFIC VOLUMES: UPPER LEVEL**  
 Los Angeles International Airport Master Plan  
 Los Angeles International Airport  
 June 1997



**LEGEND**

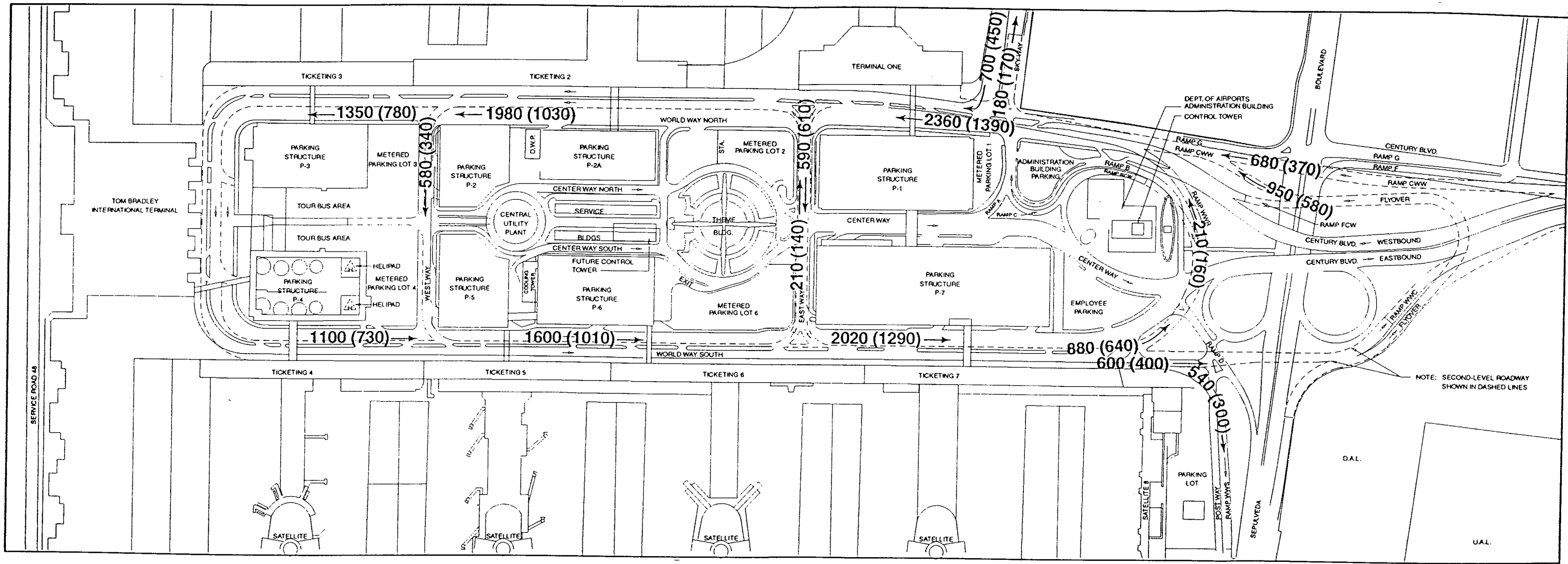
**1870** Traffic volumes where indicated during Airport peak hour: 11 a.m.–12 p.m.

Prepared by: Leigh Fisher Associates using Los Angeles Department of Airports hourly traffic reports (August 11-17, 1996).

Figure 3.2  
**AUGUST 1996 AIRPORT PEAK-HOUR  
 TRAFFIC VOLUMES: LOWER LEVEL**  
 Los Angeles International Airport Master Plan  
 Los Angeles International Airport  
 June 1997



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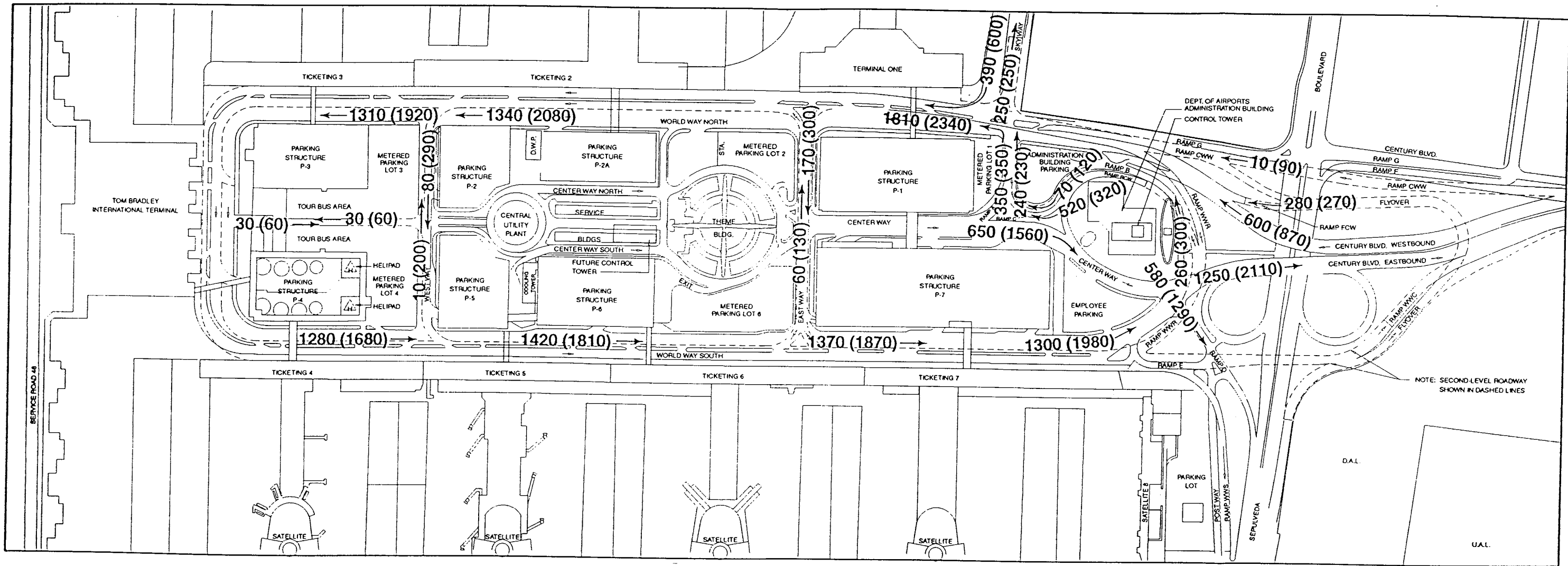
**LEGEND**

- 1870 Traffic volumes where indicated during commuter a.m. peak hour: 8 a.m.-9 a.m.
- 1870 Traffic volumes where indicated during commuter p.m. peak hour: 5 p.m.-6 p.m.

Prepared by: Leigh Fisher Associates using traffic survey data collected by WILTEC during March 1997 and Los Angeles Department of Airports hourly traffic reports (March 14-18, 1997).

Figure 3.3  
**MARCH 97 COMMUTER PEAK-HOUR  
 TRAFFIC VOLUMES: UPPER LEVEL**  
 Los Angeles International Airport Master Plan  
 Los Angeles International Airport  
 June 1997





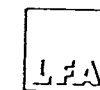
**LEGEND**

**1870** Traffic volumes where indicated during commuter a.m. peak hour: 8 a.m.–9 a.m.

**1870** Traffic volumes where indicated during commuter p.m. peak hour: 5 p.m.–6 p.m.

Prepared by: Leigh Fisher Associates using traffic survey data collected by WILTEC during March 1997 and Los Angeles Department of Airports hourly traffic reports (March 14-18, 1997).

Figure 3.4  
**MARCH 97 COMMUTER PEAK-HOUR  
 TRAFFIC VOLUMES: LOWER LEVEL**  
 Los Angeles International Airport Master Plan  
 Los Angeles International Airport  
 June 1997



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- ◆ **Remote public parking volumes**—1996 peak hour volumes entering and exiting LAWA-operated remote parking facilities were assumed to have increased from 1994 volumes in proportion to the increase in domestic passengers.
- ◆ **Employee parking volumes**—1996 peak hour volumes entering and exiting LAWA-operated employee parking facilities were assumed to have increased from 1994 volumes at the same rate as employees. The employee growth rate, as described in the *Facility Requirements Report*, March 1996, is approximately 1.9%, annually.

### **3.2      UPDATED PARKING REQUIREMENTS**

As described in the *Facility Requirements Report*, March 1996, future parking requirements assumed that the Airport should provide sufficient spaces to satisfy 100% of total remote parking demand (including demand currently satisfied by off-Airport parking operators). This was in anticipation of the Airport's need for 100% of the land currently used for off-Airport parking. Refined future Airport layout plans have shown that it will not be necessary to displace all off-Airport parking.

Information provided by Landrum & Brown in June 1997, indicated that the Airport would likely have to displace 5,400 current off-Airport parking spaces. Thus, future parking requirements were modified to assume that the Airport would supply sufficient spaces for:

- ◆ Future growth in demand currently satisfied by Airport-operated Parking Lots B and C.
- ◆ Future growth in demand currently satisfied by 5,400 spaces of off-Airport parking, assuming a 90% peak occupancy rate (Source: *On-Airport Existing Transportation Conditions* report, January 1996).



Revised future parking requirements are shown in the following table.

Required number of parking spaces			
Year	Airport-operated remote parking	Off-Airport remote parking	Total
2005	17,000	5,000	22,000
2015	22,000	6,000	28,000

Source: Leigh Fisher Associates, July 1997, from data and plans supplied by Landrum & Brown.

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# 4 Comparison of 1994 to 1996 Conditions

## 4.1 TRAFFIC VOLUMES

The procedures for developing the updated 1996 traffic volumes were described in the previous sections. Traffic volumes in 1994/1995 were developed using a trip generation program as described in the *On-Airport Existing Transportation Conditions Report*, January 1996. This program uses data describing Airport passenger, employee, and cargo traffic characteristics to estimate total volumes of vehicle trips generated by the Airport.

A comparison of traffic volumes entering and exiting the Central Terminal Area in the peak hours for 1994 and 1996 is shown in **Table 4.1**. The measured traffic counts are from surveyed ground count data while the “modeled” counts are based on an increase in design day passengers from 1994 to 1996.

Airport CTA roadway access and egress is provided by Sky Way to the north, Century Boulevard to the east, and Sepulveda Boulevard to the south. A comparison of traffic volume data collected for 1994 and 1996 indicated a shift in the directional distribution for Airport access. For 1994 vehicle traffic, 40% accessed the Airport via Sepulveda Boulevard (27% to the upper level, 13% to the lower level) and 31% accessed the Airport via Century Boulevard (18% to the upper level, 13% to the lower level). In 1996, 26% of vehicle traffic accessed from Sepulveda Boulevard (18% to the upper level, 8% to the lower level) and 47% accessed the Airport via Century Boulevard (20% to the upper level, 27% to the lower level). Despite the significant shift in access traffic, the 1996 directional distribution of vehicle traffic leaving the Airport remains essentially unchanged from 1994.

## 4.2 VEHICLE CIRCULATION

A two-level network of intersecting roadways accommodates vehicle access between various locations on the Airport. Circulation and recirculation paths currently provided for vehicles within the CTA remain unchanged from those that were available in 1994, as follows.

A circulation roadway (World Way North in front of Terminals 1-3 and World Way South in front of Terminals 4-7/8), provides curbside access to all terminals on both the upper and lower levels. This roadway also provides access to the structured parking facilities on the lower level and to Parking Structures P-3 and P-4 on the upper level.

Table 4-1  
Los Angeles International Airport Master Plan

SUMMARY OF TRAFFIC COUNT DATA

Time period	Design day passengers (a)	Modeled traffic counts			Measured traffic counts (b)		
		Inbound	Outbound	Total	Inbound	Outbound	Total
August 1994							
Airport peak hour (c)	10,237	5,455	4,871	10,326	5,455	4,871	10,326
March 1995							
A.M. commuter peak hour (d)	4,987	3,163	2,971	6,134	3,163	2,971	6,134
P.M. commuter peak hour (e)	4,796	2,759	3,873	6,632	2,759	3,873	6,632
August 1996							
Airport peak hour	11,345	6,043	5,396	11,439	5,910	5,380	11,290
March 1997							
A.M. commuter peak hour	5,687	3,604	3,385	6,989	4,100	3,280	7,380
P.M. commuter peak hour	5,614	3,225	4,530	7,755	4,160	4,480	8,640

Source: Leigh Fisher Associates, May 1997.

- (a) Total domestic and international, originating and terminating, design day passengers, source: Landrum & Brown, 1995 and 1997.
- (b) Total inbound and outbound Airport traffic, source: *Hourly Traffic Report by Loop*, LAX AVI, 1994 to 1997.
- (c) Airport peak hour defined as weekday from 11:00 a.m. to 12:00 p.m.
- (d) A.M. commuter peak hour defined as weekday from 8:00 to 9:00 a.m.
- (e) P.M. commuter peak hour defined as weekday from 5:00 to 6:00 p.m.

On the upper level, a four-lane roadway for enplaning activity intersects Sky Way from the east. West of Sky Way, the roadway provides one left-turn only lane to access East Way, three travel lanes, and a 20-foot roadway width to accommodate both single- and double-parking at the curbside. The upper level roadway maintains three travel lanes and 20-foot curbside lane within the CTA.

On the lower level, the circulation roadway for deplaning activity is separated into a curbside roadway (i.e., “inner roadway”) and a center island roadway (i.e., “outer roadway”). The inner roadway provides two travel lanes and one curbside lane for deplaning vehicular activity. Initially, the outer roadway provides five travel lanes and one lane for commercial vehicle passenger pickup at the center island. Changes in the number of lower-level outer roadway lanes occur at several locations, including:

- ◆ In front of Terminal 1 at East Way—the five-lane roadway drops one travel lane for access to East Way, then gains a travel lane for egress from East Way
- ◆ In front of Terminal 2 at West Way—the five-lane roadway drops one lane for access to West Way
- ◆ In front of Terminal 3—the four-lane roadway drops one lane for access to the parking structure P-3
- ◆ In front of TBIT—the three-lane roadway drops one lane for access to the roadway linking the lower level with the upper level at West Way
- ◆ In front of Terminal 4—a decrease in lane widths allows the roadway to accommodate an additional lane and increase to three travel lanes
- ◆ In front of Terminal 5, east of West Way—the roadway increases to four travel lanes following the addition of a lane for egress from West Way

East Way and West Way provide north-south circulation links between World Way North and World Way South on the upper and lower levels. Upper-level East Way provides a northbound lane and two southbound lanes; one southbound lane is used only to access parking structures P-1 and P-7. Upper-level West Way is a one-way roadway providing two southbound lanes (including a lane-drop to access parking structures P-2 and P-5). On the lower level, East Way provides two northbound and two southbound lanes, and West Way provides two southbound lanes and one northbound lane.

Center Way, an eastbound-only, four-lane roadway parallel to and located midway between World Way North and World Way South, serves as the main outbound roadway for all parking facilities in the CTA. Exit lanes from parking structures P-3 and P-4 join the three-lane Center Way to the west of

West Way. Center Way bypasses the Airport Theme Building by dividing into separate two-lane roads, Center Way North and Center Way South, that are joined by exit lanes from the adjacent parking structures P-2, P-5, and P-6. At the intersection with East Way, the north and south links of Center Way combine to become a four-lane roadway. Prior to intersecting World Way South to the east of Terminal 7/8, there is a single lane drop for northbound access to Sky Way, and a lane gain for egress from parking structure P-7.

Recirculation is provided on both the upper and lower levels of the CTA by both East Way and West Way, as well as by the following ramps:

- ◆ Ramp WWR—This ramp provides recirculation access from upper-level World Way South to the east of Terminal 7 to (1) upper-level World Way North to the east of upper-level Sky Way, (2) lower-level World Way North (Ramp RCW) at lower-level Sky Way, and (3) lower-level Center Way near the LAWA Administration Building.
- ◆ Ramp CW—This ramp provides recirculation access for outbound (eastbound) Center Way and World Way South traffic to the east of the LAWA Administration Building. Access from this ramp to lower-level World Way North is provided at two locations: (1) to the east of lower-level Sky Way (Ramp B) and (2) at the intersection with lower-level Sky Way.
- ◆ Recirculation ramp providing access between lower-level World Way in front of TBIT and upper-level West Way—This ramp provides for eastbound and westbound access between upper-level West Way and lower-level World Way.
- ◆ Ramp A—This ramp provides recirculation access from eastbound Center Way to lower-level World Way North at the intersection with Sky Way.

## 4.3 TRAFFIC OPERATIONS

A general comparison of 1994 and 1996 on-Airport traffic operations was prepared based on the updated surveys and observations of traffic operations.

### 4.3.1 ROADWAY OPERATIONS

In the *On-Airport Existing Transportation Conditions Report* of January 1996, it was reported that the CTA roadway network generally provides adequate capacity to serve vehicular demands during the peak periods, except at Terminal 1 and Terminal 7/8. At both terminals, the combined influence of nearby intersection signals and curbside congestion reduce roadway capacity.

New traffic surveys reveal that inbound and outbound traffic has increased or remained about the same on the upper and lower levels of the CTA for all

peak hours. The estimated volume/capacity (V/C) peak-hour ratios and levels of service (LOS) for the CTA roadways for August 1996 conditions are presented in **Table 4.2**. These V/C ratios represent the August 1996 volumes illustrated on **Figures 3.1 and 3.2**, and not the March conditions discussed in the *On-Airport Existing Transportation Conditions Report* of January 1996. As shown, the CTA roadway network provides adequate throughput capacity to serve peak period demands, except at Terminal 1 and Terminal 7/8 during the Airport peak hour.

**Table 4-2  
PEAK-HOUR LEVEL OF SERVICE ON WORLD WAY NORTH/SOUTH  
AUGUST 1996 CONDITIONS**

Roadway	Airport peak hour (11:00 a.m. to noon)			
	Upper level		Lower level	
	V/C	LOS	V/C	LOS
World Way @				
1	1.18	F	1.26	F
2	0.92	E	0.91	E
3	0.71	C	0.83	D
International	0.71	C	0.83	D
4	0.66	B	0.70	B
5	0.93	E	0.92	E
6	0.93	E	0.92	E
7/8	1.16	F	1.14	F
Center Way	--	--	0.66	B
East Way	0.78	C	0.60	A
West Way	0.88	D	0.54	A

V/C = Volume to capacity ratio  
 LOS = Level of Service  
 n.a. = Data not available

Source: Leigh Fisher Associates, December 1997 based on Los Angeles International Airport Master Plan—Phase I, *On-Airport Existing Transportation Conditions report*, January 1996 and *On-Airport Ground Transportation Facility Requirements report*, March 1996.

### 4.3.2 CURBSIDE OPERATIONS

The previous existing conditions report indicated that during peak hours, up to one-third of vehicles observed at the curbsides were double- or triple-parked with the most severe problems occurring in front of Terminals 1, 7/8, or the Tom Bradley International Terminal.

Again, the increase in traffic during the peak hours suggests that the previous shortage of curbside space (28% in 1994/1995) would also increase.

### **4.3.3 PARKING OPERATIONS**

As described in the Public Parking Utilization section of the previous existing conditions report, public parking lots in the CTA reached capacity during peak hours of the day, during the Airport peak month of August. It appears that the 1994 trends have continued and might be expected to continue during the summer months.

Typically, to provide a high level of passenger service, adequate close-in parking should be provided so that patrons would be inconvenienced less than 30 hours per year, with those hours occurring on the 10 busiest days. Overcrowded and closed parking facilities provide a low level of passenger service, as patrons are forced to spend more time searching for a parking space, and may have to walk further because the only available spaces are not convenient to their desired terminal. The lack of available spaces during peak periods is aggravated by the CTA parking supply being dispersed among multiple lots and structures, limiting LAWA's ability the direct motorists to adjacent parking structures.

Section 3.2 of this report gives the future parking requirements that have been developed to provide close-in, convenient parking during times of high demand.