
IV. ENVIRONMENTAL IMPACT ANALYSIS

J. TRANSPORTATION AND TRAFFIC

This Section summarizes the information provided in the Traffic Study for the Santa Monica College Bundy Campus Master Plan (Traffic Study), prepared by Kaku Associates in September 2006. The Traffic Study, which is provided as Appendix G to this Draft EIR, evaluated traffic impacts related to the Bundy Campus Master Plan (Master Plan) based on the following traffic scenarios:

- Existing (2005) Conditions – The analysis of existing peak hour traffic conditions provides the basis for the assessment of future traffic conditions. The existing conditions analysis includes a description of key streets and highways in the project area, traffic volumes, and current intersection and roadway operating conditions.
- Cumulative Base (2010) Conditions – This scenario projects the future traffic growth and intersection operating conditions that could be expected from regional growth and known projects in the vicinity of the Bundy Campus by the year 2010. This analysis provides the baseline conditions against which the Master Plan’s impacts are evaluated. The cumulative base (No Project) scenario assumed that no access to Airport Avenue would be provided, no traffic signal would be installed at the existing Bundy Driveway, and no new Northeast Bundy Driveway would be constructed.
- Cumulative Plus Master Plan (2010) Conditions – The analysis identified the potential incremental impacts of the Master Plan on future traffic operating conditions by adding the Master Plan’s expected traffic to the cumulative base traffic conditions. This analysis was conducted for each of the 16 potential Access Alternatives plus the No Project Access Alternative.

ENVIRONMENTAL SETTING

Freeway and Street Characteristics

Primary regional access to the Bundy Campus is provided via the Santa Monica Freeway (I-10), which runs east-west approximately one mile north of the site, and the San Diego Freeway (I-405), which runs north-south approximately one mile east of the Bundy Campus.

Local access to and from the Bundy Campus is primarily provided via Bundy Drive (which becomes Centinela Avenue south of Airport Avenue), Airport Avenue, and 23rd Street/Walgrove Avenue. Bundy Drive is a four-lane north-south arterial classified as a major highway by the City of Los Angeles. Airport Avenue is a two-lane east-west street and is not classified in the City of Santa Monica Circulation Element; it is treated as a collector street in this study. Walgrove Avenue (in the City of Los Angeles) and 23rd Street (in the City of Santa Monica) serve as collector streets, providing access to Airport Avenue from the west.

Transit Service

The Bundy Campus is served by the two Santa Monica Big Blue Bus routes described below:

- Big Blue Bus Line 8 (Ocean Park Boulevard) - Line 8 runs from downtown Santa Monica to UCLA via Second Street, Main Street, Ocean Park Boulevard, National Boulevard and Westwood Boulevard. In the vicinity of the Bundy Campus, Line 8 operates on Ocean Park Boulevard. Weekday peak period headways are approximately 15 minutes in both directions. Weekday service is provided from about 6:00 a.m. until after 11:00 p.m.
- Big Blue Bus Line 14 (Bundy-Centinela) - Line 14 runs from Culver Boulevard in Culver City to Brentwood generally along Centinela Avenue, Bundy Drive, Barrington Avenue and Sunset Boulevard. In the vicinity of the Bundy Campus, Line 14 operates on Centinela Avenue and Bundy Drive. Peak period headways are approximately 15 minutes in both directions. Weekday service is provided from about 6:00 a.m. until about 9:00 p.m.

Study Locations

The Traffic Study evaluated potential peak hour traffic impacts at 27 study intersections and neighborhood traffic impacts on 22 street segments in the vicinity of the Bundy Campus. These locations were selected based on consultation with City of Los Angeles and City of Santa Monica staff as well as comments received from the public in the initial stages of the Draft EIR process.

Study Intersections

New traffic counts were collected during the typical weekday morning and afternoon peak periods (from 7:00 to 9:00 a.m. and 4:00 to 6:00 p.m.) at all 27 study intersections in September 2005, during the third week of the Fall 2005 semester. The study intersections that were selected for evaluation of potential peak hour traffic impacts are listed below. Eighteen of the following intersections are entirely within the City of Los Angeles (marked with a single asterisk “*”); seven intersections are entirely within the City of Santa Monica (marked with a double asterisk “**”). Jurisdiction over two study intersections is shared by the Cities of Los Angeles and Santa Monica (marked with a triple asterisk “***”). Of the 27 intersections listed, 24 intersections are controlled by traffic signals and three intersections (indicated) are controlled by stop-signs. A map showing the locations of the following study intersections is provided in Figure IV.J-1.

1. 20th Street and Pico Boulevard**
2. Cloverfield Boulevard and Pico Boulevard**
3. I-10 eastbound off-ramp at Centinela and Pico Boulevard**
4. Bundy Drive and Pico Boulevard*
5. Bundy Drive and I-10 eastbound on-ramp*

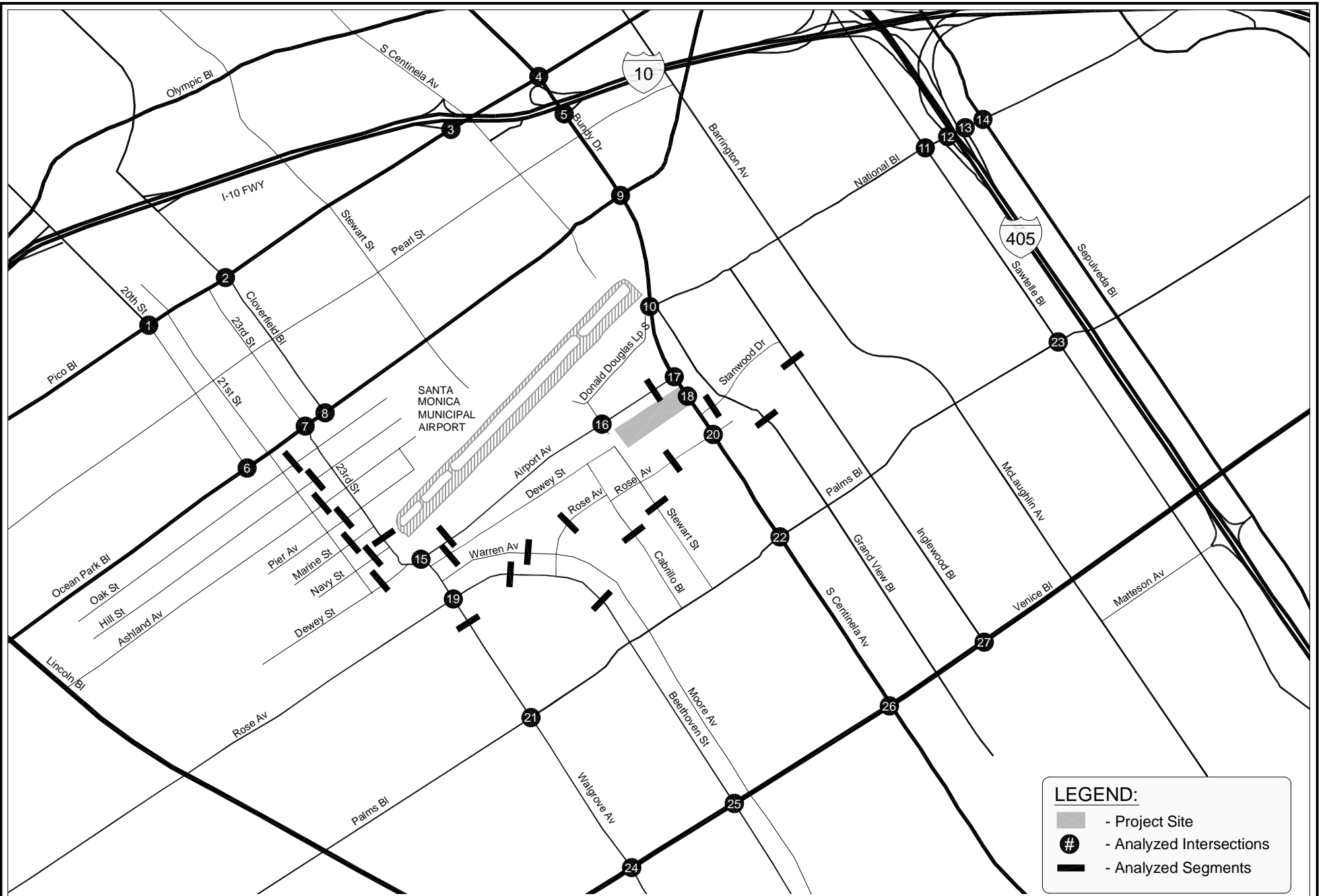
6. 20th Street and Ocean Park Boulevard**
7. 23rd Street and Ocean Park Boulevard**
8. Cloverfield Boulevard and Ocean Park Boulevard**
9. Bundy Drive and Ocean Park Boulevard*
10. Bundy Drive and National Boulevard*
11. Sawtelle Boulevard and National Boulevard*
12. I-405 southbound on-ramp and National Boulevard*
13. I-405 northbound off-ramp and National Boulevard*
14. Sepulveda Boulevard and National Boulevard*
15. 23rd Street/Walgrove Avenue and Airport Avenue (two-way stop-controlled)***
16. Donald Douglas Loop South and Airport Avenue (all-way stop-controlled)**
17. Bundy Drive and Airport Avenue***
18. Bundy Drive and Bundy Driveway (two-way stop-controlled) *
19. Walgrove Avenue and Rose Avenue*
20. Centinela Avenue and Rose Avenue*
21. Walgrove Avenue and Palms Boulevard*
22. Centinela Avenue and Palms Boulevard*
23. Sawtelle Boulevard and Palms Boulevard*
24. Walgrove Avenue and Venice Boulevard*
25. Beethoven Street and Venice Boulevard*
26. Centinela Avenue and Venice Boulevard*
27. Inglewood Boulevard and Venice Boulevard*

Analyzed Segments

New weekday ADT volume data was collected at the 22 street segments in September and October 2005. The street segments that were selected for evaluation of potential neighborhood traffic impacts are listed below. Street segments 1 through 12 are located in the City of Los Angeles (marked with a single asterisk (“*”)); street segments 13 through 22 are located in the City of Santa Monica (marked with a double asterisk (“**”). A map showing the locations of the following street segments is provided in Figure IV.J-1.

1. Beethoven Street south of Rose Avenue*
2. Cabrillo Boulevard south of Rose Avenue*

3. Dewey Street between Walgrove Avenue and Maplewood Avenue*
4. Grand View Boulevard north of Palms Boulevard*
5. Inglewood Boulevard north of Palms Boulevard*
6. Rose Avenue east of Walgrove Avenue*
7. Rose Avenue east of Warren Avenue*
8. Rose Avenue west of Centinela Avenue*
9. Stanwood Drive between Bundy Drive and Grand View Boulevard*
10. Stewart Street south of Rose Avenue*
11. Walgrove Avenue south of Rose Avenue*
12. Warren Avenue between Walgrove Avenue and Maplewood Avenue*
13. 23rd Street north of Airport Avenue**
14. Airport Avenue east of 23rd Street/Walgrove Avenue**
15. Airport Avenue west of Centinela Avenue**
16. Ashland Avenue between 21st Street and 23rd Street**
17. Dewey Street between 21st Street and 23rd Street**
18. Hill Street between 21st Street and 23rd Street**
19. Marine Street between 21st Street and 23rd Street**
20. Navy Street between 21st Street and 23rd Street**
21. Oak Street between 21st Street and 23rd Street**
22. Pier Avenue between 21st Street and 23rd Street**



Source: Kaku Associates, September 2006.



Figure IV.J-1
Locations of Study Intersections
and Street Segments

Level of Service Methodology

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. In urban environments, LOS D is typically considered the minimum desirable LOS. The methodologies specified by each city for the analysis of signalized intersections have been used as appropriate. At the two shared intersections, existing operating conditions have been evaluated in accordance with procedures adopted by each city. For intersections in the City of Los Angeles, the Los Angeles Department of Transportation (LADOT) requires that the Transportation Research Board's "Critical Movement Analysis" (CMA) method of intersection capacity analysis be used to determine the intersection volume-to-capacity (V/C) ratio and corresponding LOS for the given turning movements and intersection characteristics at signalized intersections.¹ The CALCADB software package developed by LADOT was used to implement the CMA methodology in this study. Table IV.J-1 defines the ranges of V/C ratios and their corresponding LOS using the CMA method. The 18 signalized intersections wholly or partially within Los Angeles are currently controlled by the city's Automated Traffic Surveillance and Control System (ATSAC). In accordance with LADOT procedures, a capacity increase of seven percent (0.07 V/C adjustment) was applied to reflect the benefits of ATSAC at these intersections.

Table IV.J-1
LOS Definitions for Signalized Intersections Using CMA Method

| LOS | V/C Ratio | Operating Conditions |
|--|--------------|---|
| A | 0.000-0.600 | EXCELLENT. No vehicle waits longer than one red light and no approach phase is fully used. |
| B | >0.600-0.700 | VERY GOOD. An occasional approach phase is fully utilized; many drivers begin to feel somewhat what restricted within groups of vehicles. |
| C | >0.700-0.800 | GOOD. Occasionally drivers may have to wait through more than one red light; backups may develop behind turning vehicles. |
| D | >0.80-0.90 | FAIR. Delays may be substantial during portions of the rush hours, but enough lower volume periods occur to permit clearing of developing lines, preventing excessive backups. |
| E | >0.90-1.00 | POOR. Represents the most vehicles intersection approaches can accommodate; may be long lines of waiting vehicles through several signal cycles. |
| F | >1.00 | FAILURE. Backups from nearby locations or on cross streets may restrict or prevent movement of vehicles out of the intersection approaches. Tremendous delays with continuously increasing queue lengths. |
| <i>Source: Transportation Research Board, Transportation Research Circular No. 212, Interim Materials on Highway Capacity, 1980.</i> | | |

¹ *Transportation Research Board, Critical Movement Analysis, 1980.*

The City of Santa Monica employs the “Operational Analysis” method from the Transportation Research Board’s Highway Capacity Manual (HCM), to perform the intersection LOS analysis for each of the signalized locations.² This method determines the average control delay per vehicle and the V/C ratio at intersections based on the amount of traffic traveling through the intersection, the travel lane geometries, and other factors affecting capacity. The calculated level of delay is related to the LOS at the intersection, as shown in Table IV.J-2.

Table IV.J-2
LOS Definitions for Signalized Intersections Using 2000 HCM Operational Method

| LOS | Average Control Delay per Vehicle (seconds) | Operating Conditions |
|-----|---|---|
| A | ≤ 10.0 | EXCELLENT. No vehicle waits longer than one red light and no approach phase is fully used. |
| B | $> 10.0 \leq 20.0$ | VERY GOOD. An occasional approach phase is fully utilized; many drivers begin to feel somewhat what restricted within groups of vehicles. |
| C | $> 20.0 \leq 35.0$ | GOOD. Occasionally drivers may have to wait through more than one red light; backups may develop behind turning vehicles. |
| D | $> 35.0 \leq 55.0$ | FAIR. Delays may be substantial during portions of the rush hours, but enough lower volume periods occur to permit clearing of developing lines, preventing excessive backups. |
| E | $> 55.0 \leq 80.0$ | POOR. Represents the most vehicles intersection approaches can accommodate; may be long lines of waiting vehicles through several signal cycles. |
| F | > 80.0 | FAILURE. Backups from nearby locations or on cross streets may restrict or prevent movement of vehicles out of the intersection approaches. Tremendous delays with continuously increasing queue lengths. |

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

The “Two-Way Stop-Controlled” and “Unsignalized” methodologies from the HCM were used, respectively, to determine the average vehicle control delay (in seconds) for the two-way stop-controlled study intersections of 23rd Street/Walgrove Avenue and Airport Avenue, Bundy Drive and the Bundy Driveway, and the all-way stop-controlled intersection of Donald Douglas Loop South and Airport Avenue. It should be noted that the two-way stop-controlled methodology relates intersection LOS to the delay experienced by the most constrained approach (either the southbound left-turn or the westbound approach to 23rd Street/Walgrove Avenue and Airport Avenue), rather than to the intersection as a whole. The corresponding levels of service are defined by the list in Table IV.J-3.

² *Transportation Research Board, Highway Capacity Manual, 2000.*

**Table IV.J-3
Level of Service Definitions for Unsignalized Intersections**

| LOS | Average Total Delay (seconds/vehicles) |
|--|---|
| A | < 10.0 |
| B | > 10.0 < 15.0 |
| C | > 15.0 < 25.0 |
| D | > 25.0 < 35.0 |
| E | > 35.0 < 50.0 |
| F | >50.0 |
| <i>Source: Transportation Research Board, Highway Capacity Manual, 2000.</i> | |

Freeway segment LOSs are determined based on V/C ratios and the definitions shown in Table IV.J-4. In accordance with values established in the Transportation Research Board’s 2000 HCM, a LOS E service capacity of approximately 2,200 vehicles per hour per lane (vphpl) is used for freeway mixed-flow lanes.

**Table IV.J-4
LOS Definitions for Freeway Mainline Segments**

| Level of Service | Demand/Capacity Ratio |
|--|-----------------------|
| A | 0.00 - 0.35 |
| B | >0.35 - 0.54 |
| C | >0.54 - 0.77 |
| D | >0.77 - 0.93 |
| E | >0.93 - 1.00 |
| F(0) | >1.00 - 1.25 |
| F(1) | >1.25 - 1.35 |
| F(2) | >1.35 - 1.45 |
| F(3) | >1.45 |
| <i>Source: Los Angeles County Metropolitan Transportation Authority, 2004 Congestion Management Program for Los Angeles County, June 2004.</i> | |

Existing (2005) Conditions

Existing Traffic Volumes

As discussed above, in September 2005 during the third week of the Fall 2005 semester, new traffic counts were collected during the typical weekday morning and afternoon peak periods (from 7:00 to 9:00 a.m. and 4:00 to 6:00 p.m.) at the 27 study intersections. Traffic count data sheets are contained in the Traffic Study, included as Appendix G to this Draft EIR.

Existing Peak Hour Intersection Levels of Service

The existing peak hour traffic volumes were analyzed using the intersection capacity analysis methodologies described above to determine the current operating conditions at the selected intersections. Tables IV.J-5 and IV.J-6 summarize the existing weekday a.m. and p.m. peak hour LOS at the analyzed intersections. As shown in Table IV.J-5, using the City of Los Angeles' methodology, 12 of the 20 intersections entirely or partially within that City of Los Angeles are currently operating at LOS E or F during one or both peak hours. As shown in Table IV.J-6, using the City of Santa Monica's methodology, one of the nine intersections entirely or partially within that City of Santa Monica is currently operating at LOS E or F during one or both peak hours. As is demonstrated in Tables IV.J-5 and IV.J-6, the use of two methodologies to analyze a single intersection does not in every case result in the calculation of the same operating LOS.

Cumulative Base (2010) Conditions

To evaluate the potential impacts of the Master Plan on the surrounding street system, it was necessary to develop estimates of future (2010) traffic conditions in the project area both without and with the Master Plan. Future traffic volumes were first estimated for the study intersections without the addition of Master Plan generated traffic.

Cumulative Base Traffic Projections

The cumulative base traffic projections reflect anticipated future traffic increases that can be expected from two sources. The first is ambient growth in traffic, which reflects general increases in traffic due to regional growth and development. The second source is traffic generated by specific future projects located in the vicinity of the study area, which includes all of the related projects identified in Table III-9 in Section III (Environmental Setting). The methods and assumptions used to develop the cumulative base traffic projections are described below.

**Table IV.J-5
Existing LOS at Study Intersections in City of Los Angeles**

| No. | Intersection ^a | Weekday AM Peak Hour | | | Weekday PM Peak Hour | | |
|-----|--|----------------------|-------|-----|----------------------|-------|-----|
| | | Delay | V/C | LOS | Delay | V/C | LOS |
| 4 | Bundy Drive and Pico Boulevard | N/C | 0.677 | B | N/C | 1.134 | F |
| 5 | Bundy Drive and I-10 eastbound on-ramp | N/C | 0.905 | E | N/C | 0.785 | C |
| 9 | Bundy Drive and Ocean Park Boulevard | N/C | 1.228 | F | N/C | 1.257 | F |
| 10 | Bundy Drive and National Boulevard | N/C | 1.106 | F | N/C | 0.879 | D |
| 11 | Sawtelle Boulevard and National Boulevard | N/C | 1.137 | F | N/C | 1.052 | F |
| 12 | I-405 southbound on-ramp and National Boulevard | N/C | 0.853 | D | N/C | 0.783 | C |
| 13 | I-405 northbound off-ramp and National Boulevard | N/C | 0.771 | C | N/C | 0.701 | C |
| 14 | Sepulveda Boulevard and National Boulevard | N/C | 1.033 | F | N/C | 1.027 | F |
| 15 | 23rd Street/Walgrove Avenue and Airport Avenue (two-way stop-controlled) ^{b, c} | 41 | N/C | E | 14 | N/C | B |
| 17 | Bundy Drive and Airport Avenue ^b | N/C | 0.758 | C | N/C | 0.802 | D |
| 18 | Bundy Drive and Bundy Driveway (two-way stop-controlled) ^c | 14 | N/C | B | 28 | N/C | D |
| 19 | Walgrove Avenue and Rose Avenue | N/C | 1.175 | F | N/C | 1.187 | F |
| 20 | Centinela Avenue and Rose Avenue | N/C | 0.731 | C | N/C | 0.868 | D |
| 21 | Walgrove Avenue and Palms Boulevard | N/C | 0.493 | A | N/C | 0.629 | B |
| 22 | Centinela Avenue and Palms Boulevard | N/C | 0.971 | E | N/C | 1.012 | F |
| 23 | Sawtelle Boulevard and Palms Boulevard | N/C | 1.041 | F | N/C | 1.044 | F |
| 24 | Walgrove Avenue and Venice Boulevard | N/C | 0.726 | C | N/C | 0.748 | C |
| 25 | Beethoven Street and Venice Boulevard | N/C | 0.842 | D | N/C | 0.733 | C |
| 26 | Centinela Avenue and Venice Boulevard | N/C | 1.189 | F | N/C | 0.982 | E |
| 27 | Inglewood Boulevard and Venice Boulevard | N/C | 0.820 | D | N/C | 1.161 | F |

*Note: The 12 intersections operating at LOS E or F during one or both peak hours are shown in bold.
N/C = No delay is calculated for these intersections.*

^a Except for intersections 15 and 18, all intersections currently operate under ATISAC system.

^b These intersections are located partially within the City of Santa Monica.

^c Intersection is two-way stop controlled. Level of service is based on the average vehicular delay in seconds per vehicle for the most constrained approach.

Source: Kaku Associates, September 2006.

**Table IV.J-6
Existing LOS at Study Intersections in City of Santa Monica**

| No. | Intersection | Weekday AM Peak Hour | | | Weekday PM Peak Hour | | |
|-----|--|----------------------|-------|-----|----------------------|-------|-----|
| | | Delay | V/C | LOS | Delay | V/C | LOS |
| 1 | 20 th Street and Pico Boulevard | 14 | 0.566 | B | 17 | 0.558 | B |
| 2 | Cloverfield Boulevard and Pico Boulevard | 23 | 0.700 | C | 20 | 0.561 | B |
| 3 | I-10 eastbound off-ramp at Centinela and Pico Boulevard | 15 | 0.554 | B | 10 | 0.526 | A |
| 6 | 20 th Street and Ocean Park Boulevard | 4 | 0.367 | A | 16 | 0.601 | B |
| 7 | 23 rd Street and Ocean Park Boulevard | 23 | 0.905 | C | 23 | 0.934 | C |
| 8 | Cloverfield Boulevard and Ocean Park Boulevard | 5 | 0.382 | A | 9 | 0.538 | A |
| 15 | 23rd Street/Walgrove Avenue and Airport Avenue (two-way stop-controlled) ^{a, b} | 41 | N/A | E | 14 | N/A | B |
| 16 | Donald Douglas Loop South and Airport Avenue (all-way stop-controlled) ^c | 9 | 0.294 | A | 8 | 0.225 | A |
| 17 | Bundy Drive and Airport Avenue ^a | 34 | 0.709 | C | 6 | 0.739 | A |

*Note: The one intersection operating at LOS E during one of the peak hours is shown in bold.
N/C = No V/C is calculated for this intersection.*

^a *These intersections are located partially within the City of Los Angeles.*

^b *Intersection is two-way stop controlled. Level of service is based on the average vehicular delay in seconds per vehicle for the most constrained approach.*

^c *Intersection is all-way stop controlled. Level of service is based on the average vehicular delay in seconds per vehicle for the most constrained approach.*

Source: Kaku Associates, September 2006.

Areawide Traffic Growth

An ambient growth factor of one percent per year was used to adjust the existing year 2005 traffic volumes to reflect the effects of regional growth and development by 2010. This rate of growth was applied to all study intersections. It should be noted that this is slightly more conservative than the ambient growth rate typically used by the City of Santa Monica (0.8 percent per year).

Traffic Generation for Related Projects

Information regarding potential future projects either under construction, planned, or proposed for development in the project area was obtained from several sources, including previous studies recently conducted in the area and information obtained from the Cities of Los Angeles and Santa Monica. A list of related projects is provided Table III-9 in Section III (Environmental Setting). Detailed trip generation estimates for related projects in the City of Los Angeles and City of Santa Monica are presented in the Traffic Study included in Appendix G to this Draft EIR.

Traffic Distribution of Related Projects

The geographic distribution of traffic generated by developments such as the related projects included in this analysis depends on several factors. These factors include the type and density of the proposed land uses, the geographic distribution of the population from which the employees and/or patrons of the proposed developments may be drawn, the geographic distribution of activity centers (employment, commercial, and other) to which residents of proposed residential projects may be drawn, and the location of the project in relation to the surrounding street system.

The traffic distribution for the related projects in the City of Santa Monica was obtained from the City of Santa Monica's Traffix database and the anticipated travel paths of that traffic were extended throughout the study area. The assignment of related projects in the City of Santa Monica was based on the factors cited above.

Baseline Street Improvements

Several key roadway improvements in or near the project area are anticipated by the year 2010. These improvements, whether the result of local or regional Capital Improvement Programs or mitigations for ongoing or entitled cumulative projects, would result in additional capacity at various locations throughout the study area. The street network improvements listed below are assumed to be completed by the study horizon year of 2010:

- 20th Street and Pico Boulevard (Study Intersection 1) - The traffic signal will be modified to provide protected-permitted phasing for the eastbound left-turn movements.
- Bundy Drive and Pico Boulevard (Study Intersection 4) - The traffic signal will be modified to provide protected-permitted phasing for the northbound, southbound, eastbound and westbound left-turn movements.
- Sawtelle Boulevard and National Boulevard (Study Intersection 11) – The southbound approach will be modified to provide two lefts, one through, and one shared through/right-turn lane.
- I-405 Southbound On-Ramp and National Boulevard (Study Intersection 12) – The westbound approach will be modified to provide two lefts and two through lanes.
- I-405 Northbound Off-Ramp and National Boulevard (Study Intersection 13) – The northbound approach will be modified to provide one left, one shared left/right, and one right-turn lane.
- Sepulveda Boulevard and National Boulevard (Study Intersection 14) – The eastbound approach will be modified to provide two lefts, one through, and one through/right-turn lane.
- Centinela Avenue and Venice Boulevard (Study Intersection 26) - The traffic signal will be modified to provide protected-permitted phasing for the southbound left-turn movements.

Cumulative Base Traffic Volumes

Forecasts of cumulative base traffic volumes were developed by adding traffic generated by the cumulative development projects to the background existing volumes adjusted by areawide traffic growth. In addition, the existing (September 2005) traffic volumes at the Bundy Campus were updated to reflect the changes in vehicular access to the campus between Fall 2005 and Spring 2006. For a detailed explanation of modifications to the baseline traffic data, refer to the Traffic Study included as Appendix G to this Draft EIR. The resulting cumulative base (2010) traffic volumes at the 27 analyzed intersections represent future conditions without the traffic from the Master Plan.

Tables IV.J-7 and IV.J-8 summarize the cumulative base weekday a.m. and p.m. peak hour LOS at the analyzed intersections in the City of Los Angeles and the City of Santa Monica, respectively. As shown in Table IV.J-7, using the City of Los Angeles' methodology, 15 of the 20 intersections entirely or partially within the City of Los Angeles would operate at LOS E or F during one or both peak hours in 2010, prior to the implementation of the Master Plan. As shown in Table IV.J-8, using the City of Santa Monica's methodology, two of the nine intersections entirely or partially within that City of Santa Monica would operate at LOS E or F during one or both peak hours in 2010, prior to implementation of the Master Plan. The remaining intersections would operate at LOS D or better during both peak hours in 2010, prior to implementation of the Master Plan. As is demonstrated in Tables IV.J-7 and IV.J-8, the use of two methodologies to analyze a single intersection does not in every case result in the calculation of the same operating LOS.

Table IV.J-7
Cumulative Base LOS at Study Intersections in City of Los Angeles

| No. | Intersection ^a | Weekday AM Peak Hour | | | Weekday PM Peak Hour | | |
|-----|---|----------------------|-------|-----|----------------------|-------|-----|
| | | Delay | V/C | LOS | Delay | V/C | LOS |
| 4 | Bundy Drive and Pico Boulevard | N/C | 0.861 | D | N/C | 1.367 | F |
| 5 | Bundy Drive and I-10 eastbound on-ramp | N/C | 1.367 | F | N/C | 0.861 | D |
| 9 | Bundy Drive and Ocean Park Boulevard | N/C | 1.302 | F | N/C | 1.361 | F |
| 10 | Bundy Drive and National Boulevard | N/C | 1.100 | F | N/C | 0.926 | E |
| 11 | Sawtelle Boulevard and National Boulevard | N/C | 0.963 | E | N/C | 1.073 | F |
| 12 | I-405 southbound on-ramp and National Boulevard | N/C | 0.459 | A | N/C | 0.543 | A |
| 13 | I-405 northbound off-ramp and National Boulevard | N/C | 0.527 | A | N/C | 0.508 | A |
| 14 | Sepulveda Boulevard and National Boulevard | N/C | 1.090 | F | N/C | 1.034 | F |
| 15 | 23rd Street/Walgrove Avenue and Airport Avenue (two-way stop-controlled) ^b | * | 1.201 | F | 17 | 1.297 | C |
| 17 | Bundy Drive and Airport Avenue | N/C | 0.823 | D | N/C | 0.855 | D |
| 18 | Bundy Drive and Bundy Driveway (two-way stop-controlled) ^b | * | 0.826 | F | * | 0.950 | F |
| 19 | Walgrove Avenue and Rose Avenue | N/C | 1.376 | F | N/C | 1.396 | F |
| 20 | Centinel Avenue and Rose Avenue | N/C | 0.788 | C | N/C | 0.932 | E |
| 21 | Walgrove Avenue and Palms Boulevard | N/C | 0.592 | A | N/C | 0.744 | C |
| 22 | Centinel Avenue and Palms Boulevard | N/C | 1.033 | F | N/C | 1.079 | F |
| 23 | Sawtelle Boulevard and Palms Boulevard | N/C | 1.099 | F | N/C | 1.100 | F |
| 24 | Walgrove Avenue and Venice Boulevard | N/C | 0.908 | E | N/C | 0.926 | E |
| 25 | Beethoven Street and Venice Boulevard | N/C | 0.897 | D | N/C | 0.775 | C |
| 26 | Centinel Avenue and Venice Boulevard | N/C | 1.321 | F | N/C | 1.091 | F |
| 27 | Inglewood Boulevard and Venice Boulevard | N/C | 0.867 | D | N/C | 1.229 | F |

Note: The 15 intersections operating at LOS E or F during one or both peak hours are shown in bold.
* = Indicates oversaturated conditions; delay cannot be calculated.
N/C = No delay is calculated for these intersections.

^a Except for intersections 15 and 18, all intersections currently operate under ATSAC system.

^b Intersection is controlled by stop signs. The "Delay" column shows the analysis using HCM stop-controlled methodology, for the purpose of evaluating the operating condition of the intersection. Average vehicular delay in seconds is reported rather than V/C ratio. The "V/C" column shows the analysis using the CMA methodology, for the purpose of application of the City of Los Angeles significance criteria. V/C ratio is reported.

Source: Kaku Associates, September 2006.

Table IV.J-8

Cumulative Base LOS at Study Intersections in City of Santa Monica

| No. | Intersection | Weekday AM Peak Hour | | | Weekday PM Peak Hour | | |
|-----|--|----------------------|-------|-----|----------------------|-------|-----|
| | | Delay | V/C | LOS | Delay | V/C | LOS |
| 1 | 20 th Street and Pico Boulevard | 19 | 0.657 | B | 20 | 0.682 | B |
| 2 | Cloverfield Boulevard and Pico Boulevard | 26 | 0.802 | C | 22 | 0.653 | C |
| 3 | I-10 eastbound off-ramp at Centinela and Pico Boulevard | 15 | 0.631 | B | 11 | 0.587 | B |
| 6 | 20 th Street and Ocean Park Boulevard | 4 | 0.427 | A | 18 | 0.702 | B |
| 7 | 23rd Street and Ocean Park Boulevard | 48 | 1.083 | D | * | 1.374 | F |
| 8 | Cloverfield Boulevard and Ocean Park Boulevard | 5 | 0.479 | A | 9 | 0.613 | A |
| 15 | 23rd Street/Walgrave Avenue and Airport Avenue (two-way stop-controlled)^a | * | N/C | F | 17 | N/C | C |
| 16 | Donald Douglas Loop South and Airport Avenue (all-way stop-controlled) ^b | 9 | 0.316 | A | 8 | 0.259 | A |
| 17 | Bundy Drive and Airport Avenue | 6 | 0.765 | C | 4 | 0.759 | A |

Note: The two intersections operating at LOS F during one of the peak hours are shown in bold.
 * = Indicates oversaturated conditions; delay cannot be calculated.
 N/C = No V/C is calculated for this intersection.
^a Intersection is two-way stop controlled. LOS is based on average vehicular delay in seconds per vehicle for the most constrained approach.
^b Intersection is all-way stop controlled. LOS is based on average vehicular delay in seconds per vehicle.
 Source: Kaku Associates, September 2006.

Existing Access

The Bundy Campus currently provides approximately 609 parking spaces in surface parking lots. When baseline traffic data was collected for the Traffic Study in Fall 2005, vehicular access to the Bundy Campus was limited to the Bundy Driveway and parking on the campus itself was restricted to faculty, staff and those requiring American Disability Act (ADA) access. No direct vehicular access was available from the Bundy Campus to Airport Avenue through Donald Douglas Loop South. Bundy Campus students parked in a former remote shuttle parking lot on the northeast corner of Airport Avenue and Donald Douglas Loop South and walked across Airport Avenue to and from the campus. The parking lot had been in use for approximately a decade as remote parking for SMC students until Fall 2005 when the start of construction on the City of Santa Monica's Airport Park forced its relocation to another site elsewhere in the City of Santa Monica.

Vehicular access to the Bundy Campus is currently provided at the following locations:

- Bundy Driveway - allows for left turn and right turn ingress as well as right turn egress onto Bundy Drive.
- Donald Douglas Loop South Driveway – allows for outbound right turn-only egress onto Airport Avenue at Donald Douglas Loop South.

ENVIRONMENTAL IMPACTS

Thresholds of Significance

Thresholds of Significance – Intersection Traffic Impacts

City of Los Angeles Significance Criteria

LADOT has established threshold criteria to determine if a proposed project has a significant traffic impact at a specific intersection. According to the LADOT criteria, a project impact would be considered significant if the conditions provided in Table IV.J-9 are met.

**Table IV.J-9
City of Los Angeles Significance Thresholds**

| Intersection Conditions with Project Traffic | | Project Increase in V/C Ratio |
|--|---------------|-------------------------------|
| LOS | V/C Ratio | |
| C | 0.701 - 0.800 | > 0.040 |
| D | 0.801- 0.900 | > 0.020 |
| E, F | > 0.901 | > 0.010 |

Source: City of Los Angeles Department of Transportation, Traffic Study Policies and Procedures, March 2002.

The intersection of 23rd Street/Walgrove Avenue and Airport Avenue is two-way stop-controlled. For the purpose of calculating the V/C ratio and applying the City of Los Angeles significance criteria, this intersection was analyzed using the CMA methodology.

City of Santa Monica Significance Criteria

The City of Santa Monica determines a proposed project’s intersection traffic impacts through the application of significance criteria summarized in Table IV.J-10.

**Table IV.J-10
City of Santa Monica Significance Thresholds**

| Future Base Scenario | | Future Plus Project Scenario |
|---|---|---|
| If LOS = | Intersection Street Type | Significant Impact If: |
| A, B, or C | collector street intersection | average vehicle delay increase \geq 15 seconds or LOS becomes to D, E, or F |
| | arterial intersection | average vehicle delay increase \geq 15 seconds or LOS becomes to E or F |
| D | collector street intersection | any net increase in average seconds of delay per vehicle |
| | arterial intersection | average delay increase \geq 15 seconds or LOS becomes to E or F |
| E | collector or arterial street intersection | any net increase in average seconds of delay per vehicle |
| F | collector or arterial street intersection | HCM V/C ratio net increase \geq 0.005 |
| Source: City of Santa Monica, Transportation Management Division, Traffic Study Guidelines, 2003. | | |

As indicated in Table IV.J-10, the significance criteria to be used depend on whether the subject location is an arterial or collector street and on the projected base operating conditions prior to the addition of project traffic. The significance of an impact is measured by either a change in the LOS to an unacceptable condition or a change in the average vehicular delay of a given amount dependent on the projected LOS. If the projected LOS is F, significance is defined in terms of a change in V/C ratio (as calculated by the HCM operational method), not average vehicular delay, as average vehicular delay cannot be calculated using the HCM operational method under oversaturated conditions.

Thresholds of Significance - Street Segment Impacts

City of Los Angeles Significance Criteria

The City of Los Angeles has established threshold criteria which are used to determine if a proposed project has a significant traffic impact on the street system based on an increase in the projected final average daily traffic volumes, as indicated in Table IV.J-11.

City of Santa Monica Significance Criteria

The City of Santa Monica impact criteria applied to evaluate potential traffic impacts on street segments are based on the existing daily traffic on collector, feeder, and local streets, and the projected level of increase that can be attributed to a proposed project, as provided in Table IV.J-12. For the purpose of applying these criteria, Airport Avenue was treated as a collector street.

**Table IV.J-11
City of Los Angeles Significance Thresholds (Street Segment Impact)**

| Projected Average Daily Traffic with Project (Final ADT) | Project-Related Increase in ADT |
|--|--|
| Less than 1,000 | 120 trips or more |
| 1,000 or more | 12 percent or more of final ADT |
| 2,000 or more | 10 percent or more of final ADT |
| 3,000 or more | 8 percent or more of final ADT |
| <i>Source: Transportation Research Board, Highway Capacity Manual, 2000.</i> | |

**Table IV.J-12
City of Santa Monica Significance Thresholds (Street Segment Impact)**

| Collector Streets | |
|--|--|
| A transportation impact is significant if the Base Average Daily Traffic Volume (ADT) is: | greater than 13,500 and there is a net increase of one trip or more in ADT due to project related traffic |
| | greater than 7,500 but less than 13,500 and the project related traffic increases the ADT by 12.5% or the ADT becomes 13,500 or more |
| | less than 7,500 and the project related traffic increases the ADT by 25% |
| Feeder Streets | |
| A transportation impact is significant if the Base Average Daily Traffic Volume (ADT) is: | greater than 6,750 and there is a net increase of one trip or more in ADT due to project related traffic |
| | greater than 3,750 but less than 6,750 and the project related traffic increases the ADT by 12.5% or the ADT becomes 6,750 or more |
| | less than 3,750 and the project related traffic increases the ADT by 25% |
| Local Streets | |
| A transportation impact is significant if the Base Average Daily Traffic Volume (ADT) is: | greater than 2,250 and there is a net increase of one trip or more in ADT due to project related traffic |
| | greater than 1,250 but less than 2,250 and the project related traffic increases the ADT by 2.5% or the ADT becomes 2,250 or more |
| | less than 1,250 and the project related traffic increases the ADT by 25% |
| <i>Note: Average Daily Traffic Volume "increase" denotes adverse impacts; "decrease" denotes beneficial impacts. Source: City of Santa Monica, Transportation Management Division, Traffic Study Guidelines, 2003.</i> | |

Thresholds of Significance – Regional Transportation System Impacts

The Los Angeles County Metropolitan Transportation Authority's (LACMTA) Congestion Management Program (CMP) for Los Angeles County³ requires that when an environmental impact report is prepared for a proposed project, traffic impact analyses be conducted for select CMP arterial monitoring intersections and freeway monitoring locations based on the following criteria:

- All CMP arterial monitoring intersections where a proposed project will add 50 or more trips during either the a.m. or p.m. weekday peak hours of adjacent street traffic.
- All CMP mainline freeway monitoring locations where a proposed project will add 150 or more trips, in either direction, during either the a.m. or p.m. weekday peak hours.

The CMP guidelines establish that a proposed project would have a significant impact when the following threshold is exceeded:

- A proposed project increases traffic demand on a CMP facility by 2 percent of capacity ($V/C \geq 0.02$), causing LOS F ($V/C > 1.00$)
- If the facility is already at LOS F, a significant impact occurs when a proposed project increases traffic demand on a CMP facility by 2 percent of capacity ($V/C \geq 0.02$).

Project Characteristics

Interim Phase

As discussed in Section II (Project Description), the Interim Phase of the Master Plan would involve expanded use of the four-story West Building from 16 to up to 20 classrooms and potential use of the existing two-story East Building for offices, student services, community education, storage or leased for other purposes consistent with current zoning. The Interim Phase would provide a new Northeast Bundy Driveway to accommodate the new traffic signal at the northeast corner of the campus, with a new internal drive that would turn sharply to the south upon entering the Bundy Campus and connect to the existing drive along the south side of the campus. Fourteen onsite parking spaces near Bundy Drive would be eliminated to accommodate the Northeast Bundy Driveway, with 594 parking spaces remaining. During the Interim Phase, SMC programs will be scheduled to insure that adequate on-site parking will be provided at all times. Because the Interim Phase would involve the same uses that would ultimately occur under Master Plan buildout, it is assumed that impacts that would occur in the Interim Phase would be less than or equal to those evaluated for Master Plan buildout. As such, the Interim Phase is not discussed in detail in this Section.

³ Los Angeles County Metropolitan Transportation Authority, *Congestion Management Program for Los Angeles County*, June 2004.

Master Plan Buildout

As discussed in Section II (Project Description), buildout of the Master Plan calls for the retention of the existing four-story (approximately 64,000-square-foot (sf)) West Building, and proposes the eventual demolition of the two-story East Building (approximately 33,055 sf) and its replacement with a building of similar size to be located to the immediate east of the West Building. The New Building will be located within the center of the Bundy Campus, east of the existing West Building, creating a pedestrian-friendly campus green space in between the two buildings. The total developed floor area envisioned for the Bundy Campus would be approximately 100,000 sf. The proposed Site Plan depicting this vision is provided in Figure II-3 in Section II (Project Description). Buildout of the Master Plan is anticipated to occur by 2010.

Project Impacts

Access Alternatives

The Traffic Study evaluated 16 different potential vehicular Access Alternatives (excluding the No Project Access Alternative), based on combinations of the six potential access locations to and from the Bundy Campus. These Access Alternatives were selected to respond to the input received from agencies and from the public early in the EIR process. Consistent with the Master Plan document, these locations are labeled 1 through 6 on the Proposed Site Plan shown in Figure II-3 in Section II (Project Description). Under every Access Alternative, vehicular access to Stewart Street would be limited to emergency use and necessary wall maintenance. For the purpose of this discussion, the term “full access” is used to describe accesses where both left and right ingress and egress are allowed. The Access Alternatives evaluated are summarized in Table IV.J-13 and Figures IV.J-2 through IV.J-5 and are described below:

- Access Alternative A1 – The existing Bundy Driveway would have full access and would be signalized. There would also be full access at the stop-controlled intersection of Donald Douglas Loop South and Airport Avenue.
- Access Alternative A2 – The existing Bundy Driveway would have full access and would be signalized. There would also be left-in/right-out/right-in access at the stop-controlled intersection of Donald Douglas Loop South and Airport Avenue.
- Access Alternative A3 – The existing Bundy Driveway would have full access and would be signalized. There would also be right-out only access at the stop-controlled intersection of Donald Douglas Loop South and Airport Avenue.
- Access Alternative A4 – The existing Bundy Driveway would have full access and would be signalized. This would be the only access location for the site. There would be no access at the intersection of Donald Douglas Loop South and Airport Avenue.
- Access Alternative A5 – The existing Bundy Driveway would have full access and would be signalized. There would be no access at the intersection of Donald Douglas Loop South and

Airport Avenue but full access between the site and Airport Avenue would be available at the Spitfire Grill Driveway and the 3400 Airport Avenue Building Driveway.

- Access Alternative A6 – The existing Bundy Driveway would be configured for inbound-only access and would be controlled by a half traffic signal (that would not affect the movement of northbound through vehicles). There would also be full access at the stop-controlled intersection of Donald Douglas Loop South and Airport Avenue.
- Access Alternative A7 – The existing Bundy Driveway would be configured for inbound-only access and would be controlled by a half traffic signal (that would not affect the movement of northbound through vehicles). There would also be right-out only access at the stop-controlled intersection of Donald Douglas Loop South and Airport Avenue.
- Access Alternative A8 – The existing Bundy Driveway would be configured to allow right turns and left turns into the site and right turns out of the site and would be controlled by a half traffic signal (that would not affect the movement of northbound through vehicles). There would also be right-out only access at the stop-controlled intersection of Donald Douglas Loop South and Airport Avenue.
- Access Alternative A9 – The existing Bundy Driveway would have right-in/left-in/right-out access and would be unsignalized. There would also be full access at the stop-controlled intersection of Donald Douglas Loop South and Airport Avenue.
- Access Alternative A10 – The existing Bundy Driveway would have right-in/left-in/right-out access and would be unsignalized. There would be no access at the intersection of Donald Douglas Loop South and Airport Avenue but full access between the site and Airport Avenue would be available at the Spitfire Grill Driveway and the 3400 Airport Avenue Building Driveway.
- Access Alternative B1 – This Access Alternative is similar to Alternative A1, except that the existing Bundy Driveway would be closed and a new driveway (i.e., Northeast Bundy Driveway) would be constructed at the northeast corner of the campus. The Northeast Bundy Driveway would have full access and would be signalized. There would also be full access at the stop-controlled intersection of Donald Douglas Loop South and Airport Avenue.
- Access Alternative B2 – This Access Alternative is similar to Alternative A6, except that the existing Bundy Driveway would be closed and a new driveway (i.e., Northeast Bundy Driveway) would be constructed at the northeast corner of the campus. The Northeast Bundy Driveway would be configured for inbound-only access and would be controlled by a half traffic signal (that would not affect the movement of northbound-through vehicles). There would also be full access at the stop-controlled intersection of Donald Douglas Loop South and Airport Avenue.
- Access Alternative B3 – This Access Alternative is similar to Alternative A8, except that the existing Bundy Driveway would be limited to right-out only and a new driveway (i.e., Northeast Bundy Driveway) would be constructed at the northeast corner of the campus. The Northeast Bundy Driveway would be configured for inbound-only access and would be controlled by a half

traffic signal (that would not affect the movement of northbound-through vehicles). There would also be right-out only access at the stop-controlled intersection of Donald Douglas Loop South and Airport Avenue.

- Access Alternative B4 – This Access Alternative is similar to Alternative B3, except that outbound only traffic at Donald Douglas Loop South would be permitted to turn either left or right onto Airport Avenue. The existing Bundy Driveway would be limited to right-out only and a new driveway (i.e., Northeast Bundy Driveway) would be constructed at the northeast corner of the campus. The Northeast Bundy Driveway would be configured for inbound-only access and would be controlled by a half traffic signal (which would not affect the movement of northbound through vehicles).
- Access Alternative C1 – This Access Alternative is similar to Alternative A2, except that it envisions the realignment of Airport Avenue southward to run along the northern edge of the campus near Bundy Drive. The existing full traffic signal at Bundy Drive and Airport Avenue would be relocated to this location and college-related traffic would have direct access to Airport Avenue. In addition, there would be left-in/right-out/right-in access at the stop-controlled intersection of Donald Douglas Loop South and Airport Avenue. The existing Bundy Driveway would be closed under this Access Alternative.
- Access Alternative C2 – This Access Alternative is similar to Alternative A5, except that it envisions the realignment of Airport Avenue southward to run along the northern edge of the campus near Bundy Drive. The existing traffic signal at Bundy Drive and Airport Avenue would be relocated to this location and college-related traffic would have full access to Airport Avenue at the Spitfire Grill Driveway and the 3400 Airport Avenue Building Driveway. The existing Bundy Driveway would be closed under this Access Alternative.
- No Project Access Alternative – The existing Bundy Driveway would continue to provide right-in/left-in/right-out access and would remain unsignalized. There would be no access from the site to or from Airport Avenue through Donald Douglas Loop South as was provided in Fall 2005.

**Table IV.J-13
Master Plan Access Alternatives**

| Driveway Access Schemes | Bundy Driveway Location | | | | | | | | | | | | | | | |
|--|---|----|----|----|----|----|----|----|----|-----|-----------------------------------|----|----|----|----------------------------------|----|
| | Existing Bundy Driveway (at Current Location) | | | | | | | | | | Proposed Northeast Bundy Driveway | | | | Consolidated with Airport Avenue | |
| | A1 | A2 | A3 | A4 | A5 | A6 | A7 | A8 | A9 | A10 | B1 | B2 | B3 | B4 | C1 | C2 |
| Bundy Driveway/Northeast Bundy Driveway/Consolidated Driveway | | | | | | | | | | | | | | | | |
| Full access with traffic signal | X | X | X | X | X | | | | | | X | | | | X | X |
| Inbound only access with half signal | | | | | | X | X | | | | | X | | | | |
| Inbound and right-turn out access with half signal | | | | | | | | X | | | | | X | X | | |
| Right-in/left-in/right-out with stop sign | | | | | | | | | X | X | | | | | | |
| Right-in/right-out only with stop sign | | | | | | | | | | | | | | | | |
| Airport Avenue via Donald Douglas Loop South | | | | | | | | | | | | | | | | |
| Full access | X | | | | | X | | | X | | X | X | | | | |
| Right-in/left-in/right-out | | X | | | | | | | | | | | | | X | |
| Right-out/left-out only | | | | | | | | | | | | | X | | | |
| Right-out only | | | X | | | | X | X | | | | | X | | | |
| No access | | | | X | X | | | | | X | | | | | | X |
| Airport Avenue via Other Access | | | | | | | | | | | | | | | | |
| Spitfire Grill Driveway | | | | | X | | | | | X | | | | | | X |
| 3400 Airport Avenue Building Driveway | | | | | X | | | | | X | | | | | | X |
| <p><i>Note: The "X" identifies the locations where access to/from the Bundy Campus would be provided under each Access Alternative.</i></p> <p><i>Source: Kaku Associates, September 2006.</i></p> | | | | | | | | | | | | | | | | |

ALTERNATIVE A1



ALTERNATIVE A2



ALTERNATIVE A3



ALTERNATIVE A4



Note: Assumed access points and allowable turning movements under each access alternative are shown within the circles above. For reference, the project site plan is shown.

Source: Kaku and Associates, September 2006.



ALTERNATIVE A5



ALTERNATIVE A6



ALTERNATIVE A7



ALTERNATIVE A8



Note: Assumed access points and allowable turning movements under each access alternative are shown within the circles above. For reference, the project site plan is shown.

Source: Kaku Associates, September 2006.



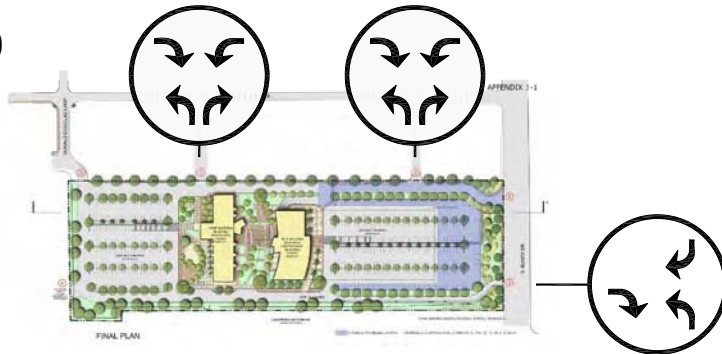
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Figure IV.J-3
Locations of Access Alternatives
Alternatives A5 through A8

ALTERNATIVE A9



ALTERNATIVE A10



ALTERNATIVE B1



ALTERNATIVE B2



Note: Assumed access points and allowable turning movements under each access alternative are shown within the circles above. For reference, the project site plan is shown.

Source: Kaku Associates, September 2006.



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Figure IV.J-4
Locations of Access Alternatives
Alternatives A9 through B2

ALTERNATIVE B3



ALTERNATIVE B4



ALTERNATIVE C1



ALTERNATIVE C2



Note: Assumed access points and allowable turning movements under each access alternative are shown within the circles above. For reference, the project site plan is shown.

Source: Kaku Associates, September 2006.



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Figure IV.J-5
Locations of Access Alternatives
Alternatives B3 through C2

Intersection Traffic Impacts

The traffic projections for the Master Plan were developed using the following three steps: estimating the trip generation of the Master Plan, determining the trip distribution, and assigning the Master Plan traffic to the roadway system.

Master Plan Trip Generation Estimates

Trip generation estimates for the proposed Master Plan, which involves the development of additional classrooms, faculty offices, and support service space, were based on observations and counts at the existing campus in September 2005, late February 2006, and early March 2006. In September 2005, the former shuttle parking lot that had been operating on the north side of Airport Avenue for over a decade was formally relocated elsewhere in Santa Monica. Therefore, the majority of Bundy Campus users parked there due to the fact that vehicular access to the Bundy Campus itself was restricted to ingress and right-turn egress only at the Bundy Driveway, and onsite parking was restricted to faculty, staff and those requiring ADA access. When a review of the September 2005 data revealed that, to a certain extent, the former shuttle parking lot was still being used at that time as remote parking for the Main Campus, it was decided to take new counts at the site early in the Spring 2006 semester (late February and early March 2006). The newer data showed that the former shuttle parking lot was generally no longer used as remote parking; therefore, the data collected in early 2006 better reflects the level of traffic generated by the Bundy Campus itself.

Peak period data from between 7:00 and 9:00 a.m. and between 4:00 and 6:00 p.m. was collected on the campus in September 2005 concurrently with the baseline traffic counts in the surrounding area. These counts were used to identify the level of peak hour traffic at the campus at that time. The counts taken at the campus in February and March 2006 were collected on three separate days between 7:00 and 10:00 a.m. and between 4:00 and 7:00 p.m. It was found that the peak hours of college-related traffic occur between 9:00 and 10:00 a.m. and between 5:45 and 6:45 p.m. A review of daily traffic volume data on several nearby arterial streets indicated that while background traffic volumes between 6:00 and 7:00 p.m. are similar to those occurring in the peak one hour between 4:00 and 6:00 p.m., the background traffic volumes between 9:00 and 10:00 a.m. are considerably lower than the peak one-hour volumes occurring between 7:00 and 9:00 a.m. To provide a conservative projection of potential future traffic impacts, the highest hourly traffic volumes associated with the campus between 7:00 and 9:00 a.m. and between 6:00 and 7:00 p.m. were projected onto the peak hour volumes at the study intersections.

The average traffic volumes observed at the campus in late February and early March 2006 were increased in proportion to the proposed increase in classroom space (from 16 existing classrooms in use in Fall 2005 to 30 classrooms in use in 2010). Table IV.J-14 presents the trip generation estimates developed for the Master Plan. The Bundy Campus is estimated to generate a total of approximately 5,317 trips per day, including approximately 360 trips during the a.m. peak hour and 452 trips during the p.m. peak hour. This represents a net increase of approximately 2,877 daily trips, of which about 121

trips would occur during the a.m. peak hour and 203 trips would occur during the p.m. peak hour, which can be attributed to the increase in classrooms provided under the Master Plan.

Table IV.J-14**Master Plan Trip Generation Estimates**

| Land Use | Size (classrooms) | Estimated Trip Generation | | | | | | |
|--|----------------------|---------------------------|--------------|-----------|------------|--------------|-----------|------------|
| | | Daily Trips | AM Peak Hour | | | PM Peak Hour | | |
| | | | In | Out | Total | In | Out | Total |
| Existing Bundy Campus (September 2005) ^a | 16 | 2,440 | 227 | 12 | 239 | 129 | 120 | 249 |
| Existing Bundy Campus (Spring 2006) ^b | 16 | 2,836 | 157 | 35 | 192 | 170 | 71 | 241 |
| Master Plan Buildout (Fall 2010) ^b | 30 | 5,317 | 294 | 66 | 360 | 319 | 133 | 452 |
| Net New Trips^c | | 2,877 | 67 | 54 | 121 | 190 | 13 | 203 |
| <p>^a Peak hour trip generation based on counts taken during the week of September 15, 2005, at which time the site across Airport Avenue was still used, in part, for remote parking for the Main Campus.</p> <p>^b Peak hour trip generation based on counts taken during the weeks of February 7 and March 6, 2006; increase in future trip estimated to be proportional to increase in classrooms.</p> <p>^c Net new trips calculated relative to September 2005 existing baseline conditions.</p> <p>Source: Kaku Associates, September 2006.</p> | | | | | | | | |

Comparison to Trip Generation Estimates for Previous Land Uses

For information purposes only, additional trip generation estimates were prepared to illustrate the magnitude of trips that were generated by the previous site occupant, BAE Systems, combined with the traffic generated by the former shuttle parking lot across Airport Avenue, when both of these sites were in full operation.

During the time when BAE Systems, an aerospace research, development, and manufacturing firm, was actively using the site, estimated trip generation was approximately 283 trips in the a.m. peak hour and 272 trips in the p.m. peak hour. Observations at the former shuttle parking lot conducted prior to the opening of the Bundy Campus showed that the shuttle lot generated approximately 265 trips in the a.m. peak hour and 141 trips in the p.m. peak hour.

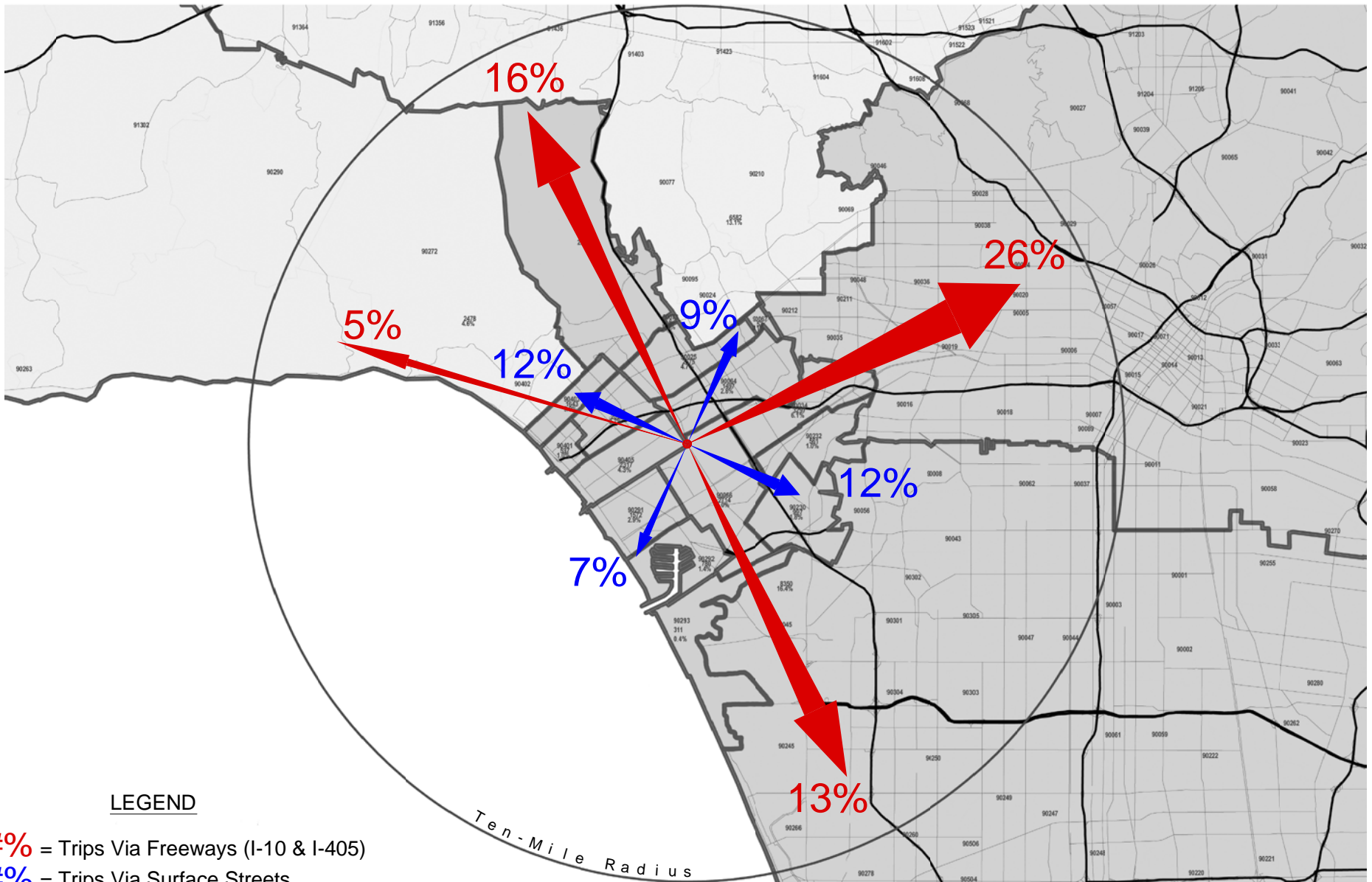
Therefore, together, these two previously existing uses generated approximately 548 trips in the a.m. peak hour and 413 trips in the p.m. peak hour. At buildout, the Master Plan is estimated to generate a total of approximately 360 trips in the a.m. peak hour and 452 trips in the p.m. peak hour. This comparison indicates that the Master Plan would generate approximately two-thirds as much traffic (66 percent) as the previous uses in the a.m. peak hour and slightly more traffic (109 percent) as compared to the previous uses in the p.m. peak hour.

Bundy Campus Traffic Distribution

The geographic distribution of traffic generated by the Bundy Campus is dependent on several factors, including the geographic distribution of the population from which students and employees are drawn and the location of the Bundy Campus in relation to the surrounding street system. Detailed data on students' home zip codes was provided by SMC for the Fall 2005 semester and was found to be virtually identical to similar data for the 2002-2003 academic year. It is anticipated that future students will continue to closely mirror the geographic distribution of existing students. Because the number of students is far greater than the number of faculty and staff, this data is considered to adequately represent the geographic distribution of all trips to and from the college.

It was found that the most heavily represented zip codes are located within approximately ten miles of SMC, although some students travel greater distances to attend classes. The 90066 zip code, which includes the Bundy Campus, is the second highest zip code from which existing students are drawn, with 5.1 percent of all students. The 90034 zip code, in West Los Angeles, has the highest representation of students (6.2 percent). Based on available street and freeway routes in the vicinity and the zip code distribution of SMC students, the general distribution of trips to and from the Bundy Campus was developed, as listed below and illustrated in Figure IV.J-6:

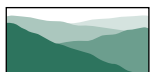
- North via I-405 = 16 percent
- South via I-405 = 13 percent
- East via I-10 = 26 percent
- West via I-10 = 5 percent
- Northeast via local streets = 9 percent
- Northwest via local streets = 12 percent
- Southeast via local streets = 12 percent
- Southwest via local streets = 7 percent



LEGEND

- #% = Trips Via Freeways (I-10 & I-405)
- #% = Trips Via Surface Streets
- = Bundy Campus

Source: Kaku Associates, September 2006.



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Figure IV.J-6
Master Plan Trip Distribution

Master Plan Trip Assignment

The peak hour college-related trips observed in September 2005 were unassigned from the surrounding street network and the estimated total future college-related trips were then assigned in accordance with each of the analyzed Access Alternatives.

While the overall geographic distribution of college-related trips is consistent, the assignment of these trips to the surrounding street network differs with each Access Alternative. Under each Access Alternative, the existing peak period left-turn prohibition on westbound Airport Avenue at Walgrove Avenue/23rd Street was taken into consideration.

The Traffic Study included in Appendix G to this Draft EIR contains the Master Plan's estimated peak hour traffic volumes under each Access Alternative at each of the study intersections during the weekday a.m. and p.m. peak hours for 2010.

Cumulative Plus Master Plan Traffic Projections

This section presents the analysis of the potential impacts of the Master Plan on the surrounding street system. The analysis compares the projected LOS at each study intersection with the Master Plan to the cumulative base (2010) scenario to determine potential Master Plan impacts, using the significance criteria established by the City of Los Angeles and the City of Santa Monica.

Cumulative Base Traffic Conditions

As discussed previously, using the City of Los Angeles' methodology, 15 of the 20 study intersections entirely or partly within that city are projected to operate at LOS E or F during one or both peak hours. Using the City of Santa Monica analysis methodology, two of the nine intersections entirely or partly within that city are projected to operate at LOS E or F during one or both peak hours for 2010. The remaining study intersections are projected to continue to operate at acceptable levels of service (LOS D or better) during both peak hours.

Cumulative Plus Master Plan Traffic Impact Analysis

The Master Plan traffic volumes were then added to the cumulative base (2010) traffic volumes, resulting in the cumulative plus Master Plan traffic volumes for the weekday a.m. and p.m. peak hour in 2010 (see Traffic Study included in Appendix G to this Draft EIR). Application of the corresponding significance criteria for each city shows that the Master Plan could significantly impact traffic conditions at up to six of the analyzed intersections during one or both of the peak hours under the cumulative plus Master Plan conditions. Table IV.J-15 presents a summary of Master Plan impacts under each Access Alternative.

As shown in Table IV.J-15, under Access Alternatives A1, A5, A9, A10, B1 and B4, the Master Plan would result in a significant impact at the following six study intersections in 2010:

- Bundy Drive and I-10 eastbound on-ramp

- Bundy Drive and Ocean Park Boulevard
- Bundy Drive and National Boulevard
- 23rd Street/Walgrove Avenue and Airport Avenue
- Bundy Drive and Airport Avenue
- Bundy Drive and Bundy Driveway

Under Access Alternatives A2, A3, A4, A7, A8 and B3, the Master Plan would result in significant traffic impacts at the following five study intersections in 2010:

- Bundy Drive and I-10 eastbound on-ramp
- Bundy Drive and Ocean Park Boulevard
- Bundy Drive and National Boulevard
- Bundy Drive and Airport Avenue
- Bundy Drive and Bundy Driveway

Under Access Alternatives A6, B2 and C2 (under which the existing Bundy Driveway would not be used), the Master Plan would result in significant traffic impacts at the following five study intersections in 2010:

- Bundy Drive and I-10 eastbound on-ramp
- Bundy Drive and Ocean Park Boulevard
- Bundy Drive and National Boulevard
- 23rd Street/Walgrove Avenue and Airport Avenue
- Bundy Drive and Airport Avenue

**Table IV.J-15
Summary of Intersections Impacted Under Each Access Alternative**

| No. | Intersection | Access Alternatives | | | | | | | | | | | | | | | |
|-----|--|---------------------|----|----|----|----|----|----|----|----|-----|----|----|----|----|-----|-----|
| | | A1 | A2 | A3 | A4 | A5 | A6 | A7 | A8 | A9 | A10 | B1 | B2 | B3 | B4 | C1 | C2 |
| 1 | 20 th Street and Pico Boulevard | | | | | | | | | | | | | | | | |
| 2 | Cloverfield Boulevard and Pico Boulevard | | | | | | | | | | | | | | | | |
| 3 | I-10 eastbound off-ramp at Centinela and Pico Blvd. | | | | | | | | | | | | | | | | |
| 4 | Bundy Drive and Pico Boulevard | | | | | | | | | | | | | | | | |
| 5 | Bundy Drive and I-10 eastbound on-ramp | I | I | I | I | I | I | I | I | I | I | I | I | I | I | I | I |
| 6 | 20 th Street and Ocean Park Boulevard | | | | | | | | | | | | | | | | |
| 7 | 23 rd Street and Ocean Park Boulevard | | | | | | | | | | | | | | | | |
| 8 | Cloverfield Boulevard and Ocean Park Boulevard | | | | | | | | | | | | | | | | |
| 9 | Bundy Drive and Ocean Park Boulevard | I | I | I | I | I | I | I | I | I | I | I | I | I | I | I | I |
| 10 | Bundy Drive and National Boulevard | I | I | I | I | I | I | I | I | I | I | I | I | I | I | I | I |
| 11 | Sawtelle Boulevard and National Boulevard | | | | | | | | | | | | | | | | |
| 12 | I-405 southbound on-ramp and National Boulevard | | | | | | | | | | | | | | | | |
| 13 | I-405 northbound off-ramp and National Boulevard | | | | | | | | | | | | | | | | |
| 14 | Sepulveda Boulevard and National Boulevard | | | | | | | | | | | | | | | | |
| 15 | 23 rd Street/Walgrove Avenue and Airport Avenue (two-way stop-controlled) | M | | | | M | M | | | M | M | M | M | | M | | M |
| 16 | Donald Douglas Loop South and Airport Avenue (all-way stop-controlled) | | | | | | | | | | | | | | | | |
| 17 | Bundy Drive and Airport Avenue | I | I | I | I | I | I | I | I | I | I | I | I | I | I | I | I |
| 18 | Bundy Drive and Bundy Driveway (two-way stop-controlled) | M | M | M | M | M | | M | M | M | M | M | | M | M | N/A | N/A |

Table IV.J-15 (Continued)

Summary of Intersections Impacted Under Each Access Alternative

| No. | Intersection | Access Alternatives | | | | | | | | | | | | | | | |
|---|--|---------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| | | A1 | A2 | A3 | A4 | A5 | A6 | A7 | A8 | A9 | A10 | B1 | B2 | B3 | B4 | C1 | C2 |
| 19 | Walgrove Avenue and Rose Avenue | | | | | | | | | | | | | | | | |
| 20 | Centinela Avenue and Rose Avenue | | | | | | | | | | | | | | | | |
| 21 | Walgrove Avenue and Palms Boulevard | | | | | | | | | | | | | | | | |
| 22 | Centinela Avenue and Palms Boulevard | | | | | | | | | | | | | | | | |
| 23 | Sawtelle Boulevard and Palms Boulevard | | | | | | | | | | | | | | | | |
| 24 | Walgrove Avenue and Venice Boulevard | | | | | | | | | | | | | | | | |
| 25 | Beethoven Street and Venice Boulevard | | | | | | | | | | | | | | | | |
| 26 | Centinela Avenue and Venice Boulevard | | | | | | | | | | | | | | | | |
| 27 | Inglewood Boulevard and Venice Boulevard | | | | | | | | | | | | | | | | |
| Total Intersections Impacted (Without Mitigation) | | 6 | 5 | 5 | 5 | 6 | 5 | 5 | 5 | 6 | 6 | 6 | 5 | 5 | 6 | 4 | 5 |
| Total Intersections Impacted (With Mitigation) | | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 |
| <p><i>Note:</i> <i>I = Denotes intersections where a significant impact would occur.</i> <i>M = Denotes intersections where a significant impact would occur but can be fully mitigated.</i> <i>N/A =The Bundy Driveway would be merged with Airport Avenue under Alternatives C1 and C2.</i> <i>Source: Kaku Associates, September 2006.</i></p> | | | | | | | | | | | | | | | | | |

Under Access Alternatives C1 (under which the existing Bundy Driveway would not be used), the Master Plan would result in significant traffic impacts at the following four study intersections in 2010:

- Bundy Drive and I-10 eastbound on-ramp
- Bundy Drive and Ocean Park Boulevard
- Bundy Drive and National Boulevard
- Bundy Drive and Airport Avenue

To provide additional information on the magnitude of the identified Master Plan impacts, Figures IV.J-7 and IV.J-8 have been prepared, which illustrate the relative proportions of peak hour traffic volumes at each of the impacted intersections under Access Alternatives A6 and B4. Traffic volumes shown in Figures IV.J-7 and IV.J-8 include existing traffic, cumulative base (ambient and related project) traffic, and traffic attributable to the Master Plan. Access Alternative A6 would provide inbound only access with a half signal at the Bundy Driveway (in its existing location) and full access to Airport Avenue at Donald Douglas Loop South. Access Alternative B4 would provide full inbound access with a half signal at a new Northeast Bundy Driveway, right-out only access at the existing Bundy Driveway, and right-out, left-out only access to Airport Avenue at Donald Douglas Loop South. These Access Alternatives were chosen to provide an overview of traffic impacts under two of the access scenarios most likely to be implemented under the Master Plan.

As shown, under either Access Alternative A6 or B4, the increase in college-related traffic would represent a maximum of approximately 8.5 percent or less of the total projected peak hour volumes at Bundy Drive and the Bundy Driveway, and lesser amounts at the four other impacted intersections on Bundy Drive. The increase in SMC-related traffic would represent less than 2 percent of the total projected peak hour volumes at the intersection of 23rd Street/Walgrove Avenue and Airport Avenue. The other 91 to 98 percent of the traffic experienced at impacted intersections would be either existing traffic or traffic attributable to ambient growth or related projects.

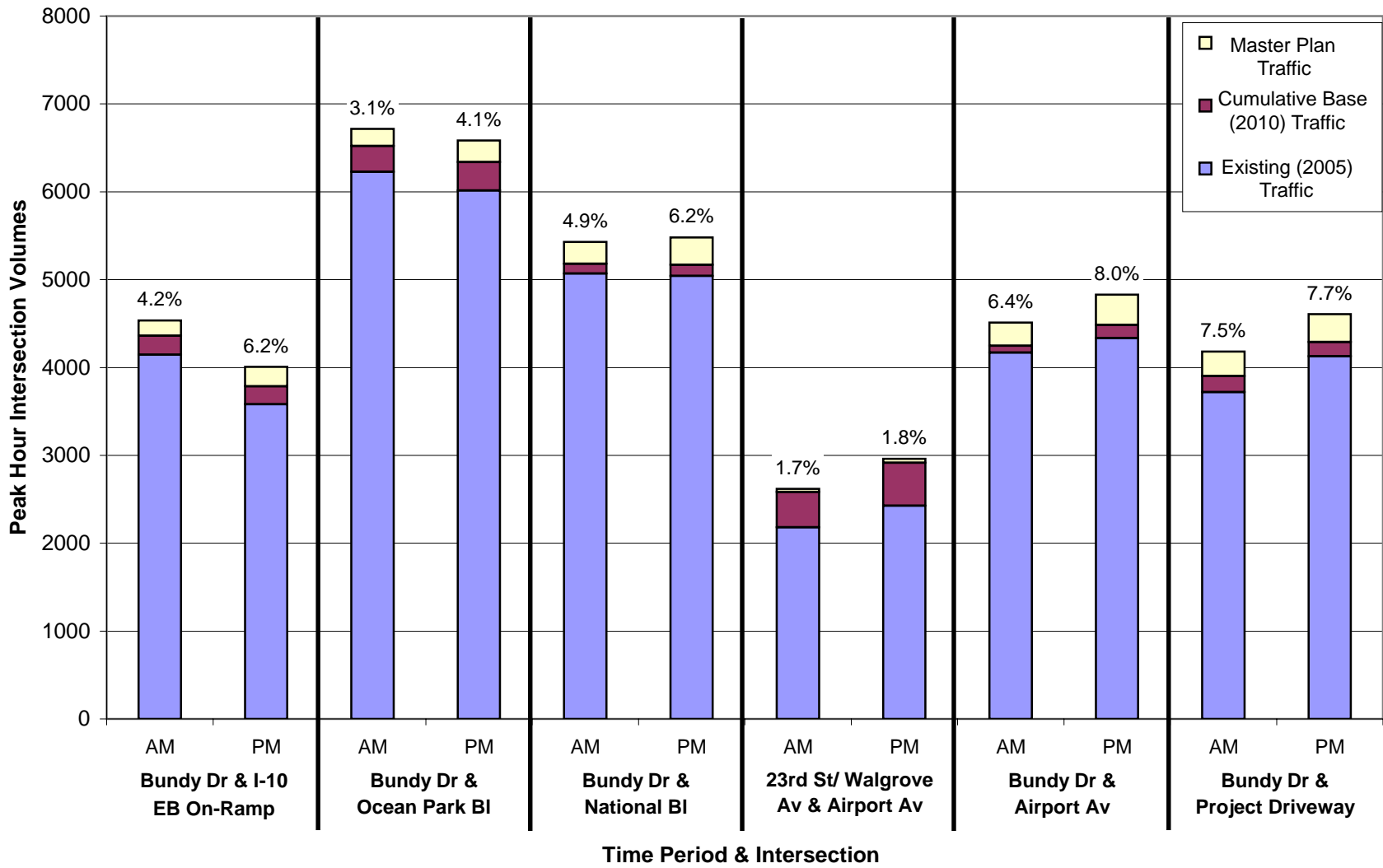
Street Segment Impacts

The Traffic Study included an analysis of impacts on street segments in the Bundy Campus vicinity. The analysis was conducted for 22 street segments, which are illustrated in Figure IV.J-1. New weekday average daily traffic (ADT) volume data was collected at these street segments in September and October 2005 and is provided in the Traffic Study included in Appendix G. The estimated daily college-related traffic that was present at the time this data was collected (Fall 2005, when most of the college-related parking and associated traffic was focused on the north side of Airport Avenue west of Bundy Drive) was subtracted from the baseline daily traffic volumes. Total future daily Master Plan-generated trips were assigned to the street network for each of the Access Alternatives using the same geographic distribution patterns previously discussed. The existing and forecasted daily street segment traffic volumes are presented in the Traffic Study included in Appendix G. As shown in Table IV.J-16, based on application

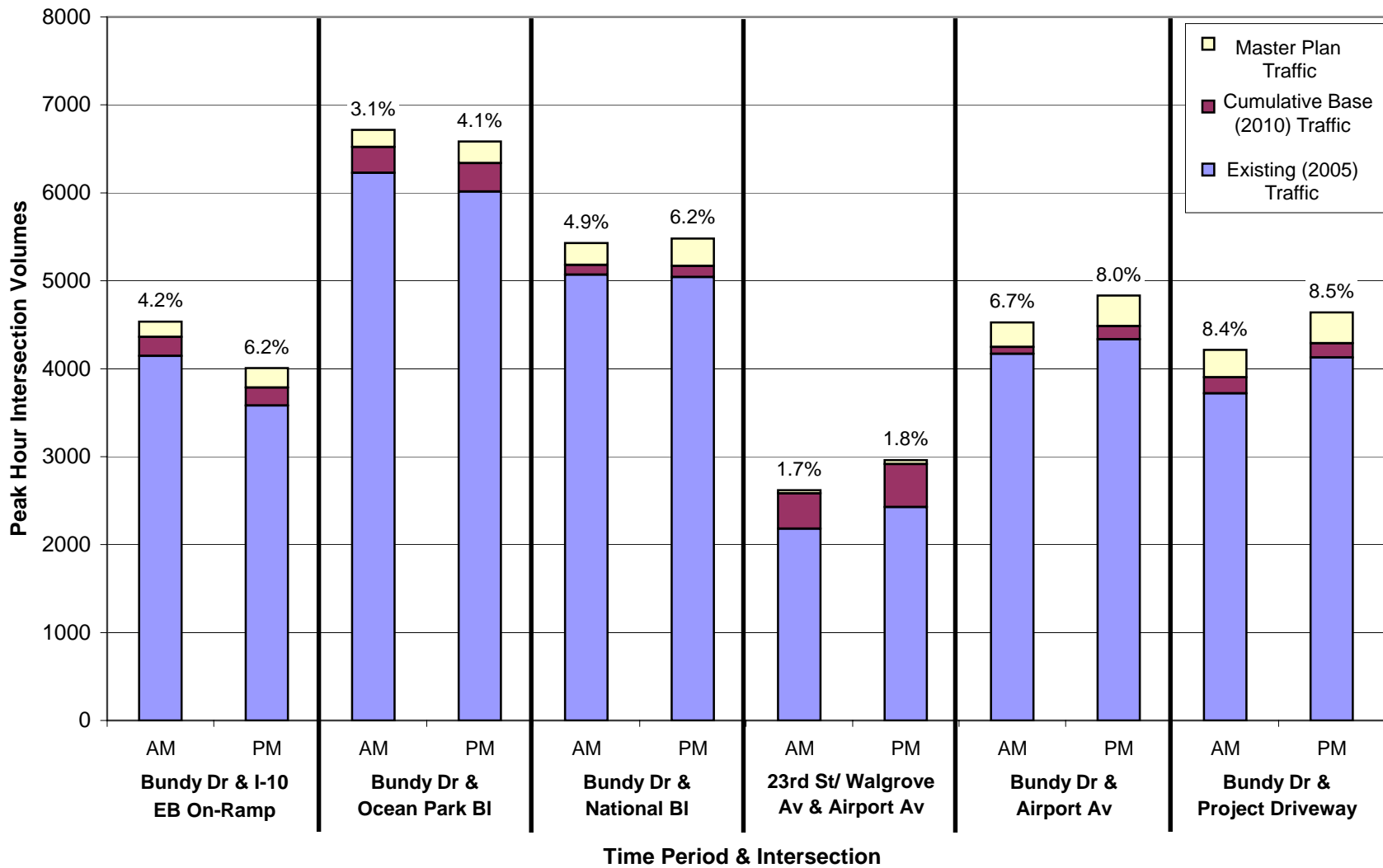
of the appropriate significance criteria for neighborhood traffic impacts, the Master Plan would create a significant traffic impact on up to three of the following street segments:

- 23rd Street north of Airport Avenue (under all Access Alternatives)
- Airport Avenue west of Centinela Avenue (under Access Alternatives C1 and C2)
- Dewey Street between 21st Street and 23rd Street (under all Access Alternatives)

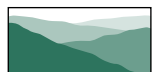
The segment of 23rd north of Airport Avenue is classified as a collector street. The segment of Dewey Street between 21st Street and 23rd Street is classified as a local street. For collector streets with a current ADT of greater than 13,500 and for local streets with a current ADT of greater than 2,250, a proposed project is considered to create a significant impact if there is a net increase in ADT of one trip or more. The existing traffic level at both of these locations is such that the addition of even a single daily trip is considered significant.



Source: Kaku Associates, September 2006.



Source: Kaku Associates, September 2006.



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Figure IV.J-8
Cumulative Traffic Volumes at Impacted Intersections
Alternative B4

**Table IV.J-16
Street Segment Impacts for Each Access Alternative**

| No. | Street Segment ^a | Access Alternatives | | | | | | | | | | | | | | | |
|--|--|---------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| | | A1 | A2 | A3 | A4 | A5 | A6 | A7 | A8 | A9 | A10 | B1 | B2 | B3 | B4 | C1 | C2 |
| 1 | Beethoven Street south of Rose Avenue | | | | | | | | | | | | | | | | |
| 2 | Cabrillo Boulevard south of Rose Avenue | | | | | | | | | | | | | | | | |
| 3 | Dewey Street between Walgrove Avenue and Maplewood Ave. | | | | | | | | | | | | | | | | |
| 4 | Grand View Boulevard north of Palms Boulevard | | | | | | | | | | | | | | | | |
| 5 | Inglewood Boulevard north of Palms Boulevard | | | | | | | | | | | | | | | | |
| 6 | Rose Avenue east of Walgrove Avenue | | | | | | | | | | | | | | | | |
| 7 | Rose Avenue east of Warren Avenue | | | | | | | | | | | | | | | | |
| 8 | Rose Avenue west of Centinela Avenue | | | | | | | | | | | | | | | | |
| 9 | Stanwood Drive between Bundy Drive and Grand View Boulevard | | | | | | | | | | | | | | | | |
| 10 | Stewart Street south of Rose Avenue | | | | | | | | | | | | | | | | |
| 11 | Walgrove Avenue south of Rose Avenue | | | | | | | | | | | | | | | | |
| 12 | Warren Ave. between Walgrove Avenue and Maplewood Ave. | | | | | | | | | | | | | | | | |
| 13 | 23 rd Street north of Airport Avenue | I | I | I | I | I | I | I | I | I | I | I | I | I | I | I | I |
| 14 | Airport Avenue east of 23 rd Street/Walgrove Avenue | | | | | | | | | | | | | | | | |
| 15 | Airport Avenue west of Centinela Avenue | | | | | | | | | | | | | | | I | I |
| 16 | Oak Street between 21 st Street and 23 rd Street | | | | | | | | | | | | | | | | |
| 17 | Hill Street between 21 st Street and 23 rd Street | | | | | | | | | | | | | | | | |
| 18 | Ashland Avenue between 21 st Street and 23 rd Street | | | | | | | | | | | | | | | | |
| 19 | Pier Avenue between 21 st Street and 23 rd Street | | | | | | | | | | | | | | | | |
| 20 | Marine Street between 21 st Street and 23 rd Street | | | | | | | | | | | | | | | | |
| 21 | Navy Street between 21 st Street and 23 rd Street | | | | | | | | | | | | | | | | |
| 22 | Dewey Street between 21 st Street and 23 rd Street | I | I | I | I | I | I | I | I | I | I | I | I | I | I | I | I |
| Total Street Segments Impacted | | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 3 | 3 |
| <i>Note: No feasible and effective mitigation measures were available to mitigate any of significant impacts at the street segments studied.</i> | | | | | | | | | | | | | | | | | |
| <i>Source: Kaku Associates, September 2006.</i> | | | | | | | | | | | | | | | | | |

The segment of Airport Avenue east of Centinela Avenue is treated as a collector street in this study, which is consistent with previous studies for other projects in the area. For collector streets in the City of Santa Monica with a current ADT of between 7,500 and 12,500, a proposed project is considered to create a significant impact if there is a net increase in ADT of 12.5 percent or more. Under Access Alternatives C1 and C2, the impact identified on Airport Avenue west of Centinela Avenue would occur because these Access Alternatives assume that this segment of Airport Avenue, and the associated traffic signal there, would be shifted southward to the northern edge of the Bundy Campus. With this change, nearly all of the traffic generated by the campus would utilize this segment of Airport Avenue to access the site, resulting in a significant increase in daily traffic volumes.

Regional Transportation System Impacts

Selection of Regional Analysis Locations

Three CMP arterial monitoring intersections were identified in the vicinity of the Bundy Campus:

- Venice Boulevard and Centinela Avenue;
- Venice Boulevard and Lincoln Boulevard; and
- Santa Monica Boulevard and Bundy Drive.

Based on the trip generation estimates previously presented and a review of the Master Plan traffic volumes shown in the Traffic Study provided in Appendix G, the Master Plan would add up to 78 vehicles in either the weekday a.m. or weekday p.m. peak hour to the intersection of Venice Boulevard and Centinela Avenue. Therefore, based on the CMP guidelines described previously in this Section, further CMP analysis is required at this intersection. Fewer than 50 new trips per hour would be added to the intersections of Venice Boulevard and Lincoln Boulevard, and Santa Monica Boulevard and Bundy Drive; therefore, no further analysis of either of those two monitoring locations is required.

The mainline freeway monitoring locations nearest to the Bundy Campus are on the I-10 Freeway at Lincoln Boulevard to the west of the site and at Overland Avenue to the east of the site. The mainline freeway monitoring location closest to the Bundy Campus on the I-405 is located near Venice Boulevard.

CMP Arterial Monitoring Intersection Impact Analysis

The intersection of Venice Boulevard and Centinela Avenue was fully evaluated in the Traffic Study and was assessed using the CMA methodology, as permitted under the CMP guidelines. The results of that analysis are provided in detail for each of the 16 potential Access Alternatives in the Traffic Study included as Appendix G to this Draft EIR. The Traffic Study concluded that there would not be a significant CMP impact at this intersection.

Freeway Impact Analysis

Existing freeway mainline volume data (2003) was obtained from the CMP and from Caltrans' 2005 Traffic Volumes on California State Highways database and were compared to the LOS thresholds provided in Table IV.J-4. A regional growth factor (one percent per year) was applied to forecast cumulative base freeway volumes to the year 2010. Based on the Master Plan trip generation estimates and the Master Plan trip assignment assumptions, the Master Plan is not expected to add more than 150 peak hour trips in either direction at these locations. The detailed results of this analysis are provided in the Traffic Study included as Appendix G to this Draft EIR. The Traffic Study concluded that the addition of Master Plan traffic to the cumulative conditions on the analyzed freeway segments would increase the V/C ratio by less than one percent of the available capacity. At this level, the impact on the freeway system would be less than significant.

CMP Transit Impact Analysis

Based on the CMP methodology provided in Section D.8.4 of the CMP, an average vehicle ridership (AVR) of 1.4 was used in order to estimate the number of person trips to and from the Bundy Campus. Based on the CMP guidelines, it was estimated that 3.5 percent of person trips to and from the Bundy Campus may use public transit. As shown in Table IV.J-13, the Master Plan is expected to generate a net increase of 121 a.m. peak hour trips and 203 p.m. peak hour trips. The application of the CMP guidelines results in the conclusion that the Master Plan would add approximately 10 or fewer new transit trips during either peak hour. The project area is currently served directly by the City of Santa Monica Big Blue Bus Line 14 and indirectly by Big Blue Bus Line 8. With approximately eight buses per hour (in both directions), these lines should be adequate to accommodate the modest estimated increase in transit ridership and no significant transit impact would occur.

SMC has been successful in promoting the use of transit, particularly at the Main Campus on Pico Boulevard. Among the reasons for this are the constrained parking supply and the high level of transit service provided by the Big Blue Bus, augmented by the SMC's intercampus shuttle system. While the intent of the Master Plan is to provide sufficient parking on-site to meet its needs, SMC supports the use of transit at all its facilities and operates an inter-campus shuttle (between the Bundy Campus and the Main Campus) until after the last class ends at the Bundy Campus, with the final run occurring Mondays through Thursdays at 10:10 p.m. The Big Blue Bus Line 14 is the only public bus line that serves the campus directly. Weekday service on this bus line ends at approximately 9:00 p.m., making it impractical for some students and staff to utilize. To further promote the use of transit at the Bundy Campus, SMC may coordinate with the Big Blue Bus to extend the hours of operation on Line 14. Under the Master Plan, it is anticipated that a bus stop on Bundy Drive will be relocated to the north of the Bundy Campus and remain in close proximity to the site, with pedestrian access provided by way of a staircase and accessible lift.

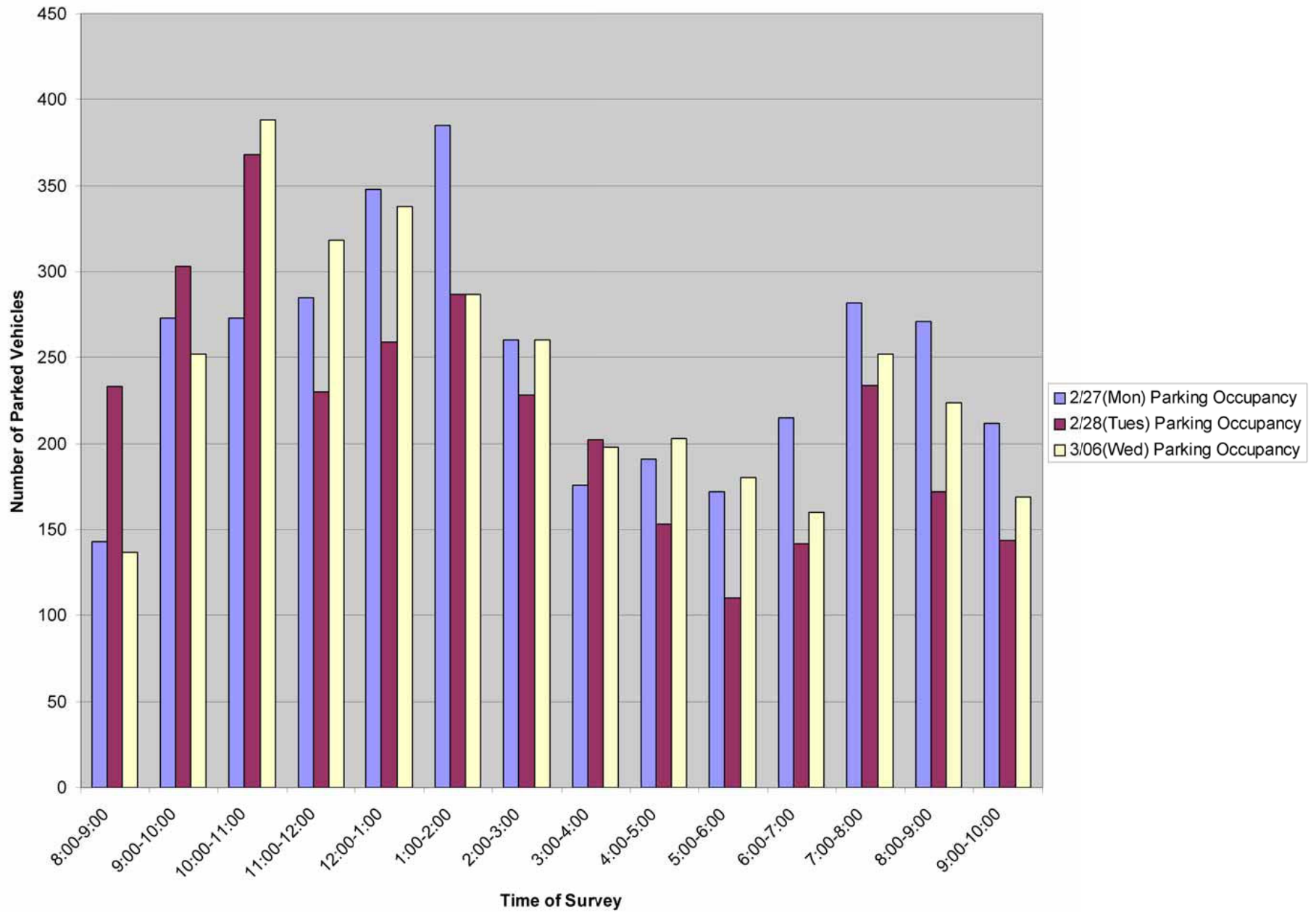
Parking Impacts

The Master Plan will provide a total of approximately 780 on-site parking spaces in a combination of surface parking lots and a one-level subterranean parking structure.

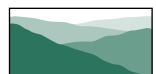
As discussed in Section IV.F (Land Use and Planning) of this Draft EIR, the City of Los Angeles Municipal Code (LAMC) does not specify a parking standard for the defined term “educational institutions” nor for community colleges. As such, the Traffic Study included an analysis of the Master Plan’s proposed parking supply and its ability to satisfy the estimated parking demand. The analysis projected future demand on the basis of empirical data collected at the Bundy Campus early in the Spring 2006 semester. The campus currently provides a total supply of approximately 609 spaces in surface parking lots. Parking utilization surveys were conducted on Monday, February 27, 2006, Tuesday, February 28, 2006 and Wednesday, March 6, 2006. Occupancy of the existing parking lots was observed hourly between 8:00 a.m. and 10:00 p.m. The peak utilization of 388 spaces (64 percent or just under two-thirds of the available supply) was observed to occur in the late morning and early afternoon hours between 11:00 a.m. and 2:00 p.m.). Hourly utilization for each of the survey days is illustrated in Figure IV.J-9. Detailed parking occupancy data for each day is provided in the Traffic Study included as Appendix G to this Draft EIR.

The observed peak demand of 388 spaces was increased in proportion to the proposed increase in educational facilities on the site (expansion from 16 classrooms to 30 classrooms) to estimate a future parking demand of approximately 728 spaces at the Bundy Campus at Master Plan buildout. Adding a circulation factor to the estimated future parking demand provides an extra margin of spaces in the supply so that people can find parking with a reasonable amount of convenience. For the college use, a circulation factor of approximately 5 percent is appropriate, resulting in an estimated parking need of approximately 765 spaces.

The Master Plan would provide approximately 780 on-site parking spaces on the site in a combination of surface and subterranean parking. With an estimated peak parking demand of approximately 728 parking spaces and an estimated peak need of approximately 765 spaces, the proposed supply of approximately 780 spaces would be sufficient to meet the parking demand anticipated under the Master Plan at buildout. It should be further noted that during the Interim Phase, SMC programs will be scheduled to insure that adequate on-site parking will be provided at all times.



Source: Kaku Associates, September 2006.



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Figure IV.J-9
Master Plan Parking Demand

CUMULATIVE IMPACTS

Impacts associated with the Master Plan combined with cumulative development in the City of Los Angeles and City of Santa Monica (including both ambient growth and traffic increases attributed to related projects) is discussed in the analyses of the Master Plan traffic impacts throughout this Section.

MITIGATION MEASURES

Intersection Measures

The Traffic Study determined that the Master Plan would result in significant traffic impacts at up to six of the following intersections during one or both of the analyzed peak hours under cumulative plus Master Plan (2010) conditions:

- Bundy Drive and I-10 eastbound on-ramp (Study Intersection 5) – under all Access Alternatives
- Bundy Drive and Ocean Park Boulevard (Study Intersection 9) – under all Access Alternatives
- Bundy Drive and National Boulevard (Study Intersection 10) – under all Access Alternatives
- 23rd Street/Walgrove Avenue and Airport Avenue (Study Intersection 15) – under Access Alternatives A1, A5, A6, A9, A10, B1, B2, B4, and C2
- Bundy Drive and Airport Avenue (Study Intersection 17) – under all Access Alternatives
- Bundy Drive and Bundy Driveway (Study Intersection 18) - under Access Alternatives A1, A2, A3, A4, A5, A7, A8, A9, A10, B1, B3, and B4

Mitigation measures were developed where feasible that would increase the capacity and/or efficiency of the roadway system at the impacted locations with an emphasis on identifying physical and operational improvements that could be implemented within the existing roadway rights-of-way. Mitigation measures that were considered for the significantly impacted intersections are described below:

Bundy Drive and I-10 eastbound on-ramp (Study Intersection 5) – Mitigation measures that would fully mitigate the Master Plan impact at this location would require improvements such as widening the southbound approach to provide a second left-turn lane. Due to physical constraints at this location, however, this mitigation measure is infeasible and the Master Plan impact would remain significant and unavoidable under all Access Alternatives.

Bundy Drive and Ocean Park Boulevard (Study Intersection 9) – A potential mitigation measure at this location to widen the westbound approach to provide a separate right-turn lane was investigated but not found to mitigate the Master Plan impact effectively. Due to physical constraints at this location, no other measures were identified and the Master Plan impact would remain significant and unavoidable under all Access Alternatives.

Bundy Drive and National Boulevard (Study Intersection 10) – This intersection is currently configured with dual turn lanes on the westbound and southbound approaches and the available curb-to-curb width is completely utilized. Alternate configurations of the intersection were considered but no feasible mitigation measure was identified and the Master Plan impact at this location would remain significant and unavoidable under all Access Alternatives.

All of the above mitigation measures were deemed infeasible and/or would not fully mitigate the identified impacts, and therefore are not recommended under the Master Plan. The following mitigation measure is recommended under the Master Plan to reduce the impact at the following intersection, although it would not reduce the impact to a less-than-significant level:

- (J-1) Bundy Drive and Airport Avenue (Study Intersection 17) – A potential mitigation measure to modify the striping on the eastbound approach to provide one left-turn lane and one shared left-turn/right-turn lane was investigated but found to only partially mitigate the Master Plan impact in the p.m. peak hour. As it would provide a partial mitigation, however, this striping is recommended. Due to physical constraints, including the ongoing construction of a sidewalk and retaining wall in the southwest corner of the intersection, no other feasible measures were identified and the Master Plan impact would remain significant and unavoidable. Under Access Alternatives C1 and C2, these physical constraints would not be present and a measure to widen the eastbound approach to provide two left-turn lanes and one right-turn lane was tested but also not found to mitigate the Master Plan impact in the p.m. peak hour effectively. Although the Master Plan's impact at this location would remain significant and unavoidable under all Access Alternatives, this mitigation measure is recommended to partially reduce impacts.

The following mitigation measures were determined to be feasible and to fully mitigate impacts at the following impacted intersections and are recommended under the Master Plan:

- (J-2) 23rd Street/Walgrove Avenue and Airport Avenue (Study Intersection 15) – The most constrained movement at this intersection is the westbound right-turn (operating at Level of Service (LOS) F in the a.m. peak hour and LOS C in the p.m. peak hour). The impact at this location is significant only in the a.m. peak hour, when the addition of Master Plan traffic there would result in a significant increase in delay. Therefore the mitigation measure that has been identified to address the impact at this location is to prohibit left turns out from Donald Douglas Loop South onto Airport Avenue during the a.m. peak period (between 7:00 and 9:00 a.m.). This operational measure would reduce the amount of Master Plan traffic to this movement and would effectively mitigate the Master Plan impact that would occur under Access Alternatives A1, A5, A6, A9, A10, B1, B2, B4, and C2.
- (J-3) Bundy Drive and Bundy Driveway (Study Intersection 18) – For all Access Alternatives, it is proposed that the southbound approach be widened to provide two through lanes and a separate right-turn lane. In addition, for Access Alternatives A1, A2, A3, A4, A5 and B1, it

is proposed to widen the eastbound approach to provide separate left-turn and right-turn lanes. Under the Access Alternatives where this location is proposed for signalization, it would also be linked to the City of Los Angeles' Automated Traffic Surveillance and Control System (ATSAC) system. This operational measure would reduce the amount of Master Plan traffic to this movement and would effectively mitigate the Master Plan impact that would occur under Access Alternatives A1, A2, A3, A4, A5, A7, A8, A9, A10, B1, B3, and B4.

Street Segment Measures

The Traffic Study determined that the Master Plan would result in significant traffic impacts at the following three street segments during one or both of the analyzed peak hours under cumulative plus Master Plan (2010) conditions:

- 23rd Street north of Airport Avenue (Street Segment 13) - under all Access Alternatives
- Airport Avenue west of Centinela Avenue (Street Segment 15) - under Access Alternatives C1 and C2
- Dewey Street between 21st Street and 23rd Street (Street Segment 17)- under all Access Alternatives

Mitigation measures that were considered for the significantly impacted street segments are described below:

23rd Street North of Airport Avenue (Street Segment 13) — The significant street segment impact identified for 23rd Street north of Airport Avenue occurs on a street that is part of a travel corridor that provides the only channel for north-south through traffic between Centinela Avenue and Lincoln Boulevard. As such, this segment of 23rd Street, while classified as a collector street, carries in excess of 25,000 vehicles per day. That traffic volume, as well as the physical characteristics of the street itself (i.e., its grade), is such that typical neighborhood traffic calming measures — such as those applied on Rose Avenue east of Bundy Drive and on 23rd Street north of Ocean Park Boulevard (stop signs and speed humps) — are not considered appropriate. The alternative that might be used on collector streets with relatively high volumes would be “speed tables,” essentially raised areas that are lower, longer and wider than speed humps. However, the installation of speed tables is not considered feasible on this segment of 23rd Street, given the grade of 23rd Street at this location, the fact that the City of Santa Monica Residential Traffic Management policy discourages measures that reroute trips from one local street to another, and the City of Santa Monica's policy to keep streets designated by the Fire Department as “Emergency Response Routes” free from design features that would slow fire trucks.

The City of Santa Monica has implemented traffic calming measures on this segment of 23rd Street, including narrowing the roadway and installing a raised, landscaped center median. It should be noted that, at one time, stop signs were installed on this segment of 23rd Street to calm traffic but were found to be problematic and have since been removed. Therefore, no further traffic calming measures are

considered feasible for this segment of 23rd Street and the impact is considered significant and unavoidable under all Access Alternatives.

Airport Avenue west of Centinela Avenue (Street Segment 15) — As the street segment impact identified on Airport Avenue west of Centinela Avenue under Access Alternatives C1 and C2 would be associated with either the constraints of the Access Alternative or with the realignment of Airport Avenue itself, no feasible mitigation for this impact has been identified, other than implementing a different Access Alternative. Therefore, this impact is considered significant and unavoidable under Access Alternatives C1 and C2.

Dewey Street between 21st Street and 23rd Street (Street Segment 17) — The street segment impact identified on Dewey Street between 21st Street and 23rd Street is based on the potential for the Master Plan to add more than one daily trip to this street segment, considered significant under the City of Santa Monica's impact criteria. Short of full closure of the affected street segment, which would not be acceptable since it serves adjacent land uses and carries substantial traffic volumes that would then need to shift to other nearby streets, there are no mitigation measures that would fully eliminate the potential for even a single Master Plan trip to be added to these street segments. Therefore, this impact is considered significant and unavoidable under all Access Alternatives.

Other Measures

The following mitigation measures are recommended to further reduce the number of vehicle trips associated with the Master Plan.

- (J-4) SMC shall continue to operate the SMC inter-campus shuttle between the Bundy Campus and the Main Campus as a means of reducing the number of college-related trips between these two campuses.
- (J-5) SMC shall coordinate with the City of Santa Monica Big Blue Bus system and, potentially, the Los Angeles County Metropolitan Transit Authority (LACMTA) Metro system to ensure continued and potentially expanded bus service to the Bundy Campus in accordance with service needs.
- (J-6) The Master Plan will seek certification under the United States Green Building Council's (USGBC) Leadership and Energy and Environmental Design – New Construction (LEED-NC) Rating System or a more recently approved LEED rating system applicable to institutions. To obtain LEED certification, the Master Plan shall obtain a minimum of 26 points achievable through incorporation of various credits, such as, but not limited to the following Sustainable Site (SS) transportation-related credits:
 - SS Credit 4.1: the Bundy Campus is currently located within 0.25 mile of two campus/public bus lines; and/or

- SS Credit 4.2: the Master Plan may provide bicycle racks, showers, and changing rooms for 5 percent of peak period building users or 0.5 percent of full-time equivalent (FTE) occupants; and/or
- SS Credit 4.3: the Master Plan may provide low-emitting or fuel-efficient vehicles and preferred parking for 3 percent of FTE occupants, provide low-emitting or fuel-efficient vehicles and preferred parking for 5 percent of total site parking capacity, or install alternative-fuel refueling stations for 3 percent of the total site parking capacity.

LEVEL OF SIGNIFICANCE AFTER MITIGATION

As indicated in Table IV.J-14 presented previously in this Section, with the implementation of Mitigation Measures J-1 and J-2, traffic impacts at the intersection of 23rd Street/Walgrove and Airport Avenue, and Bundy Drive and the Bundy Driveway, would be reduced to a less-than-significant level.

Feasible, effective mitigation measures were not identified for the impact to the intersection of Bundy Drive and I-10 eastbound on-ramp, Bundy Drive and Ocean Park Boulevard, Bundy Drive and National Boulevard, and Bundy Drive and Airport Avenue (although Mitigation Measure J-1 would partially reduce the impact at that this intersection). Therefore, impacts to these intersections would remain significant and unavoidable under all Access Alternatives.

Feasible, effective mitigation measures were not identified for the impact to the street segment of 23rd Street north of Airport Avenue, Airport Avenue west of Bundy Drive/Centinela Avenue, and Dewey Street between 21st Street and 23rd Street. Therefore, impacts to the street segments of 23rd Street north of Airport Avenue and Dewey Street between 21st Street and 23rd Street would remain significant and unavoidable under all Access Alternatives, and the impact to the street segment of Airport Avenue west of Bundy Drive/Centinela Avenue would remain significant and unavoidable under Access Alternatives C1 and C2.

All other impacts to intersections and street segments not identified above, impacts to the regional transportation system, and impacts to parking would be less than significant.