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PHG 12-0001

# Traffic Management Plan Lexus Escondido Special Events at The Centre

December 2013



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## REPORT INFORMATION

**Project:** Lexus Escondido Special Events – Traffic Management Plan  
Escondido, CA

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**Prepared For:** The Centre  
1205 Auto Park Way  
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# LEXUS ESCONDIDO SPECIAL EVENTS TRAFFIC MANAGEMENT PLAN

City of Escondido, California  
December 12, 2013

## 1.0 INTRODUCTION

LLG has been retained by the project applicant to prepare the following Traffic Management Plan (TMP) for the Lexus Escondido Special Events Mitigated Negative Declaration (MND). As part of the Master Plan Modification (MPM), the Project is proposing to establish a maximum capacity for events on its rooftop deck. Per the City building and fire codes, the maximum occupancy of the outdoor decks for any given event is 615 people. The maximum observed attendance for a previous indoor event held at the site was approximately 500 people. Typical events at the site consist of a range up to 200 attendees. Thus, this TMP assesses the circulation needs for a worst-case conservative scenario of a 615-person event. **Figure 1** includes a Project location map.

### 1.1 Need and Purpose of the Transportation Management Plan

With City approval of the Master Plan Modification, a TMP is required. This document has been prepared in anticipation of such a request in conjunction with the Traffic Assessment Letter (TAL) completed by LLG, Engineers on July 9, 2013. The prepared TMP shall be completed to the satisfaction of the City engineer.

A TMP is a document that presents an overview of procedures and management techniques to resolve any potential traffic and parking issues. The TMP is intended to be a living document, which will continue to develop and evolve after the maximum occupancy is established and special events are held to ensure smooth on-site and off-site traffic operations.

The TPM will be implemented on the Project site and field observations will be conducted to confirm the validity and adequacy of the plan. The field observations will be summarized and presented in a subsequent Traffic Monitoring Report (TMR) for a period of six (6) months or six (6) major events ( $\geq 450$  people), whichever comes first. The ultimate goal of these efforts is to ensure the adequacy of the prepared TMP and that no on-site/off-site traffic issues arise with the increase in attendees for special events.

A major event size of 450 people would be expected to generate about 200 vehicles (450 people  $\div$  2.28 vehicle-occupancy rate, explained later on in this report). The City guidelines identify 200 vehicle trips as a threshold for project-added traffic on the street system. Thus, the qualification of a 450-person event, or approximately 200 vehicles, as a “major” or “large” event would be consistent with thresholds set by the City.

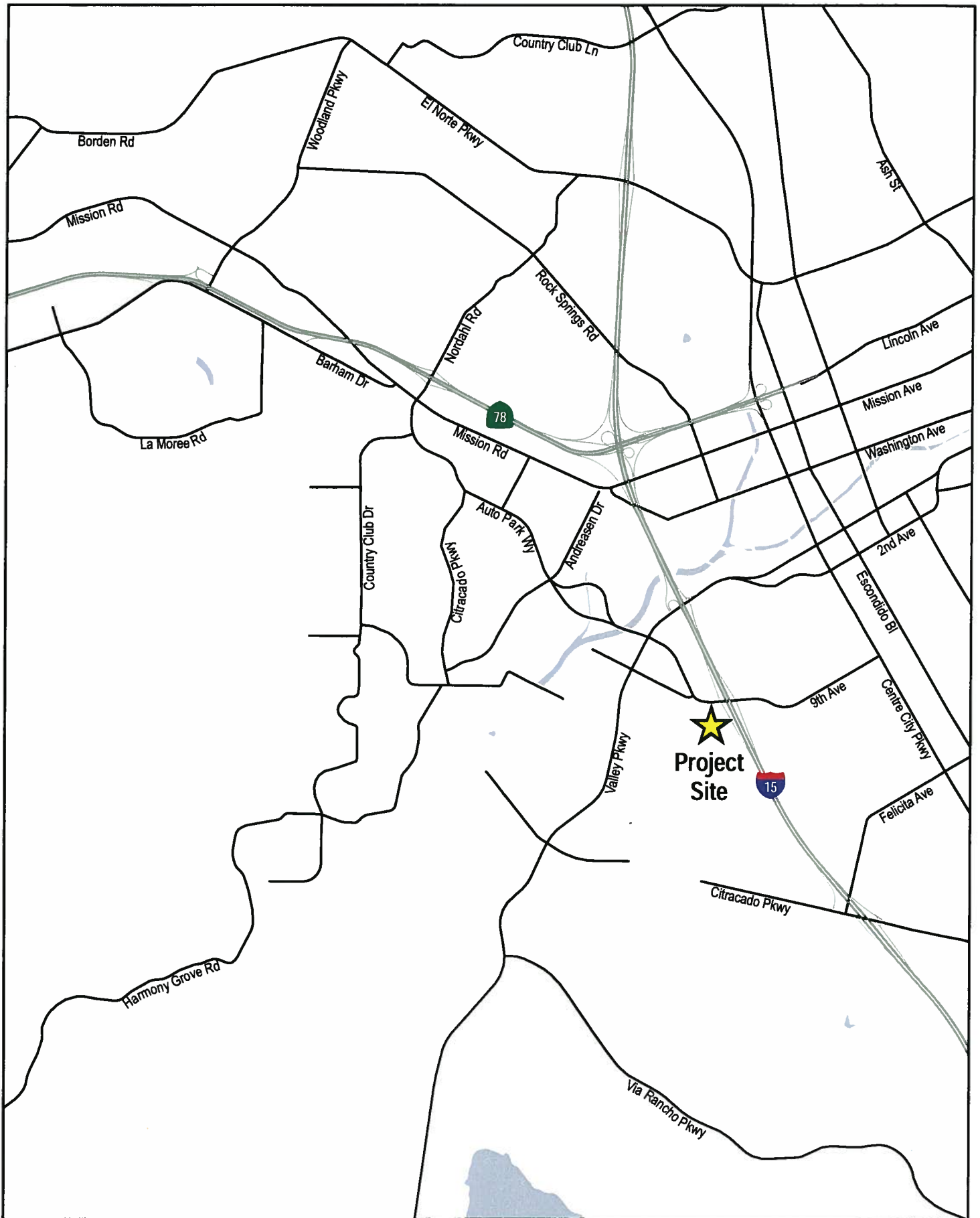


Figure 1

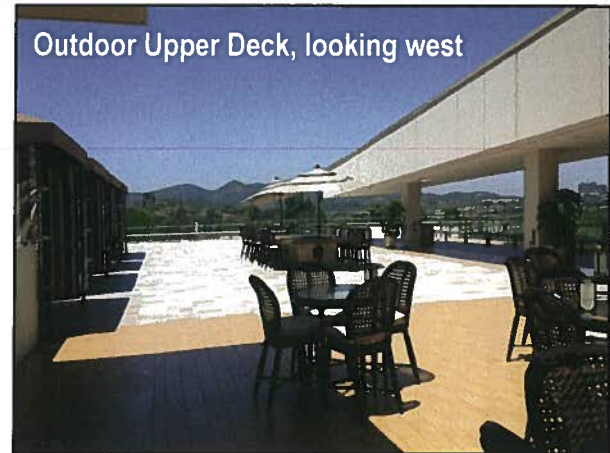
## Project Location Map

LEXUS ESCONDIDO SPECIAL EVENTS - TRAFFIC MANAGEMENT PLAN



## 2.0 PROJECT DESCRIPTION

The site consists of the currently operating Lexus Escondido automotive dealership and the upscale restaurant, Vintana, together termed “The Centre” located at 1205 Auto Park Way just west of Interstate 15 (I-15) in the City of Escondido. The site currently holds special events on the second floor indoor space and the rooftop areas such as concerts, private parties, receptions, business meetings, and other functions. As part of the MPM, The Centre proposes to increase the capacity of the rooftop deck for music/concert-type events, which could potentially draw several hundred people to the site.



As previously mentioned, per the City building and fire codes, the maximum occupancy of the outdoor decks for any given event is 615 people. However, average event attendance would be consistent with current events ranging up to 200 people.

Although special events would be more likely to take place on weekend nights over the course of the year, this TMP focuses on the effect of Project traffic during the peak commuter hours of adjacent street traffic during the weekday. **Figure 2** includes a project site plan.

### 2.1 Project Traffic Circulation Review

Primary access to The Centre is provided via a main driveway on Auto Park Way. The two-way drive aisle of the main access driveway is divided by a median featuring a large water fountain. Each directional lane measures 25 feet in width. The length of the drive aisle measures 235 feet from the driveway entrance to the end of the median where a freestanding concierge station is located just before the entrance into the circular porte-cochère. An additional 80 feet (per lane for two lanes) is available up to the valet parking drop-off location.

Since The Centre provides separate uses on the site (the Lexus Dealership and the Vintana Restaurant/Events space), a concierge system is utilized to direct patrons of The Centre to the appropriate parking area. The current system directs patrons to drive up to the concierge booth where they are greeted by a parking valet. The driver is asked if they are patrons of the dealership, restaurant, or attendees of a special event and then asked if he/she would like complimentary valet services or to self-park. Access to the large three-story parking garage is located in the southwest quadrant of the site. A total of 580 self-parking and valet stacked-parking spaces are available on site.

During the occurrence of special events when a large amount of vehicles are expected to arrive at the site, the 25-foot driveway is opened to two lanes of traffic with the left-lane signed as the valet lane and the right-lane signed as the self-parking lane.

Per conversations with Sunset Parking, the site's parking company, self-parking generally flows efficiently through the right lane when proper event parking signage is provided at the driveway. The valet operations of people exiting their vehicle and the vehicle being driven off the main drive can take anywhere from 30 seconds to one (1) minute per vehicle to process. Should valet wait times/queues exceed the available storage of the drive aisle, drivers transition into the self-parking lane to expedite their travel time into the parking areas. Per Sunset Parking, valet parking/self-parking splits vary between a 30% valet/70% self-parking split to a 50% valet/50% self-parking split depending on the conditions of the drive aisle (which is also a factor of event size).

Historically, on a Saturday in summer 2012, The Centre held a 500-person event while occupancy of the restaurant reached 300 patrons. Per conversations with Sunset Parking staff, this valet/self-park system efficiently served all on-site traffic preventing off-site backup onto Auto Park Way. With the proposed increase in occupancy for the rooftop deck, the existing valet scheme would continue to be implemented. The following section discusses the potential constraints on the existing on- and off-site circulation. An assessment of the valet/self-park operations is also included to validate the observations of Sunset Parking.

## **2.2 Existing Constraints**

The Auto Park Way corridor serves a high intensity of industrial/automotive land uses which peak during the 7:00-9:00 AM and 4:00-6:00 PM hours (typical of the home-to-work and work-to-home travel patterns). The nearby Del Dios Middle School also peaks during the 7:00-9:00 AM peak hour but experiences the afternoon peak between 2:00-4:00 PM with both vehicular and pedestrian traffic.

To assess the potential issues that could arise with the addition of Project traffic to the adjacent street system, two conservative scenarios are assessed: events with a 3:00PM start time and events with a 6:00PM start time. A less conservative (and more likely) scenario would be a weekday event starting at 7:00PM since this time period lies outside the peak hour for adjacent street traffic resulting in less conflicting factors for special event traffic.

The primary concern of event traffic is the potential for off-site queuing backing up onto Auto Park Way. The following discussion details the concerns related to off-site queuing for each of the three scenarios.

### ***3:00PM Weekday Events***

The primary constraint during the peak hour arrival for 3:00PM events would be the potential for pedestrian/vehicle conflicts at The Centre driveway due to the increase in pedestrian activity from the nearby middle school. Drivers looking to complete a westbound left-turn into the driveway would not only be confronted with the flow of eastbound traffic across three lanes on Auto Park Way, but would also need to look for gaps in pedestrian and bicycle traffic crossing the driveway, both of which could potentially result in additional delays for the left-turning volumes into the site.

### ***6:00PM Weekday Events***

For 6:00PM events, the peak arrival time would occur during the PM peak work-to-home commuter period, thus resulting in a heavy flow of eastbound traffic on Auto Park Way toward Interstate 15. It may be difficult for drivers to find sufficient gaps in the flow of eastbound traffic during this time frame, thus preventing westbound left-turns from entering The Centre driveway potentially resulting in a backup of westbound through traffic on Auto Park Way.

### ***7:00PM Weekday Events***

For 7:00PM events, the peak arrival time lies outside the peak period for adjacent street traffic (30% less traffic after 6:00PM). Therefore, off-site factors such as high eastbound traffic volumes on Auto Park Way and pedestrian traffic at The Centre driveway would not be as concerning as compared to the other two scenarios. It could be assumed that weekday 7:00PM events would be more comparable to weekend events as the interference of ambient traffic would be less likely. Based on historical observations by Sunset Parking staff, no off-site queuing issues have arisen under such circumstances.

### ***Valet Operations***

The Centre currently provides complimentary valet parking as a service to its guests and will continue to do so in the future. Valet parking, however, can be considered an existing constraint due to the interruption in the continuous flow of inbound vehicles toward on-site parking areas. The primary constraint of the valet system is the processing time from when a driver is greeted by the concierge to when the vehicle is moved off the drive allowing queued vehicles to move forward in a timely manner. The valet operation, itself, could result in backup queuing onto Auto Park Way preventing westbound left-turns from entering The Centre driveway and ultimately affecting westbound through traffic on Auto Park Way.

Based on information provided by Sunset Parking, the average processing time for valet service is approximately 30 seconds to one minute with event parking typically split 30/70 between valet services and self-parking. As mentioned, approximately 235 feet of storage is available from The Centre driveway to the concierge station with an additional 80 feet across two lanes to the valet pick-up location located within the circular porte-cochère. During the occurrence of special events, the main drive would be split into one valet lane and one self-park lane. The available storage for valet queued vehicles would be calculated assuming 22 feet per vehicle, with over 235 feet for the valet



lane of the main drive aisle, plus an additional 160 feet (two 80-foot valet lanes entering the porte-cochère), for a total of 395 feet of storage, or 18 vehicles. A peak hour arrival rate of 0.95 was assumed to calculate the 95<sup>th</sup> percentile queue. For purposes of being conservative, the valet service rate was broken up into 30-seconds, 45-seconds, and 60-seconds increments. Assuming the 30/70 valet/self-park split as well as each of the constraining factors listed above, **Table 1** calculates the maximum attendees which could efficiently be circulated by the valet/self-park traffic scheme.

As shown in Table 1, at an average rate of 30 seconds per vehicle with 30% of patrons using valet services, the maximum number of vehicles that could be processed prior to the occurrence of off-site queuing would be 380 vehicles, which corresponds to **912 attendees**. This is 412 more people than the current maximum event held on-site. This calculation indicates that queuing related to the onsite valet program will not be a site access constraint for the proposed maximum event size of 615 attendees.

**TABLE 1**  
**EVENT ATTENDANCE THRESHOLDS BASED ON VALET/SELF-PARK OPERATIONS**

Concierge/Valet Processing Time (sec/veh)	Queue Storage <sup>a</sup>		Utilization Factor <sup>b</sup>	Maximum # of Valeted Vehicles <sup>c</sup>	Maximum # of Total Vehicles (+70% Self-Park) <sup>d</sup>	Maximum # of Attendees <sup>e</sup>
	Feet	Vehicles				
30	395	18	0.95	114	380	<b>912</b>
45	395	18	0.95	76	253	<b>607</b>
60	395	18	0.95	57	190	<b>200</b>

**Footnotes:**

- a. Queue storage equals 235' from Centre driveway to concierge desk for one valet lane (two entering lanes total with one dedicated to self-parking). An additional two lanes at 80' per lane are provided at the porte-cochere where valet pick-up occurs. Assuming 22' of storage per vehicle (235'+80'+80' = 395'; 395'/22'=18 spaces available for queue storage).
- b. Utilization factor taken from Los Angeles Department of Transportation (LADOT) *Manual of Policies and Procedures: Driveway Design, Appendix B: Reservoir Needs vs. Traffic Intensity*, February 2003. Utilization factor based upon existing available storage (18 spaces).
- c. Maximum number of valeted vehicles calculated as a probability of processing time, confidence level (95<sup>th</sup> percentile), and utilization factor. Maximum number of valeted vehicles assumed to be 30% of total number of vehicles.
- d. Maximum number of valeted vehicles divided by a factor of 0.3 (30% of total vehicles) to arrive at the total number of vehicles, including self-parked vehicles.
- e. Maximum number of attendees uses the following formula: (# of total vehicles x 2.28 VOR)/95% arrival factor; e.g. 380 \* 2.28 = 866; 866/0.95 = 912

As previously mentioned, according to Sunset Parking the current valet/self-park system was capable of efficiently directing inbound traffic from Auto Park Way during a Saturday evening 500-person event, in conjunction with 300 restaurant patrons (representing a total of 800 people on-site at The Centre, similar to the 912 people calculated in Table 1). It was noted that 10 valets were actively parking vehicles using a relay system where the valet greeter would drive the vehicle up into the parking garage while a valet stationed in the garage would run down to join the other valet greeters.

As noted, the percent split between valet and self-parking vehicles averages at 30/70. During the occurrence of larger special events, this ratio typically shifts to a lower valet percentage and higher self-park rate as the valet lane slows due to a heavy flow of inbound vehicles resulting in drivers transitioning to the self-parking lane to arrive onsite faster. This proven valet/self-park scheme would continue to be implemented with the proposed increase in special event occupancy.

Since the site anticipates a maximum occupancy of 615 attendees, the same factors used to arrive at the 912-attendee maximum were reversed to calculate the valet/self-park split which would need to occur in order to effectively circulate a 615-person event depending on the valet processing time. As shown below in **Table 2**, a valet range of 21% to 42% could occur while still avoiding onsite queuing. For an average processing time of 45 seconds, an approximate 30/70 valet/self-park demand would be necessary. This ratio is consistent with field observations for current events at the existing site.

It can therefore be concluded that current valet/self-park on-site circulation scheme would be expected to efficiently circulate traffic generated by a 615-person event.

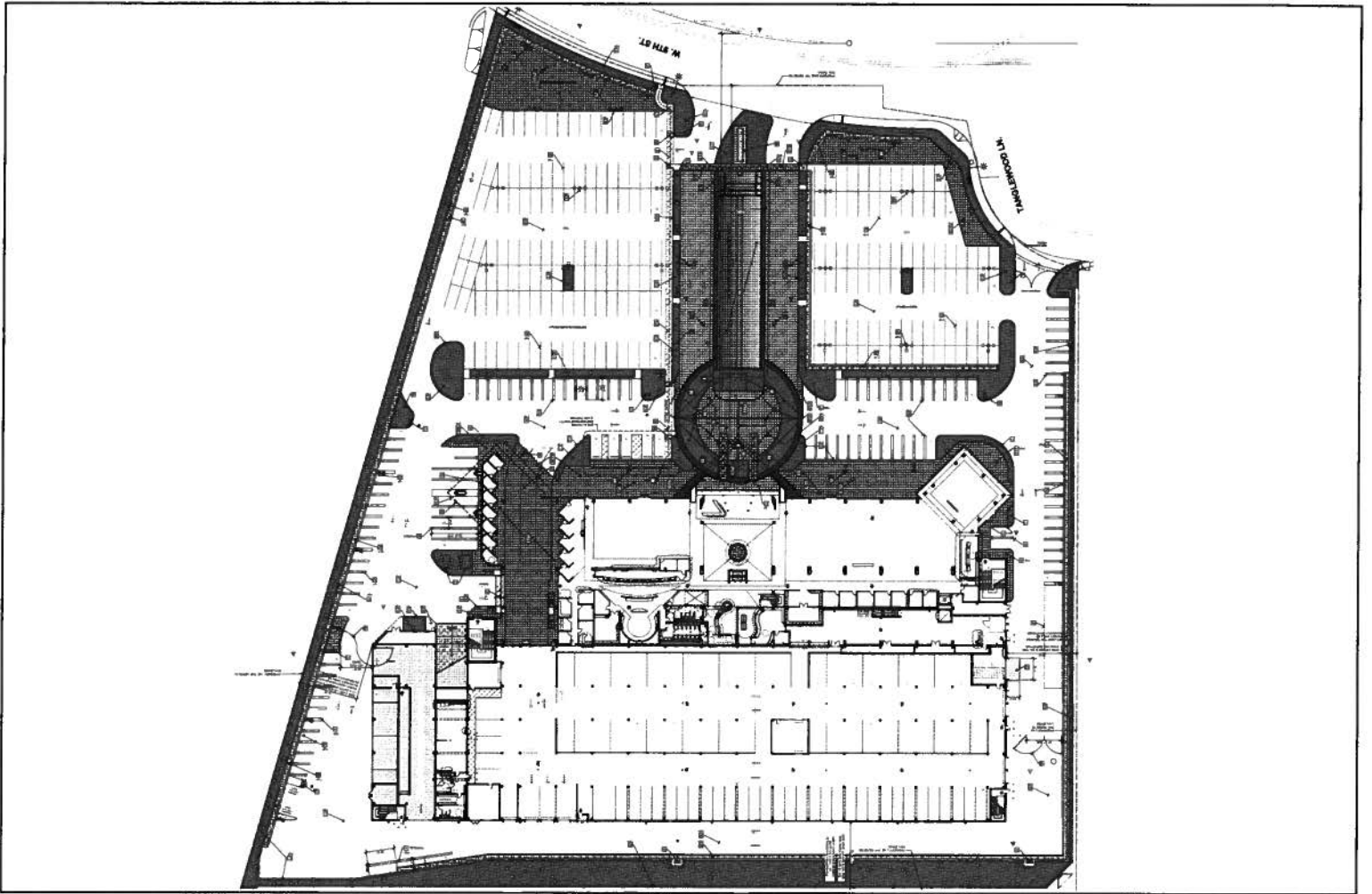
**TABLE 2  
615-PERSON EVENT VALET/SELF-PARK CALCULATED SPLIT**

Concierge/Valet Processing Time (sec/veh)	Queue Storage <sup>a</sup>		Utilization Factor <sup>b</sup>	Maximum # of Valeted Vehicles		Maximum # of Self-Park Vehicles <sup>e</sup>		Total Number of Vehicles <sup>f</sup>	Maximum # of Attendees <sup>g</sup>
	Feet	Vehicles		# of Vehicles <sup>c</sup>	% Valet <sup>d</sup>	# of Vehicles	% Self-Park		
30	395	18	0.95	114	42%	156	58%	270	615
45	395	18	0.95	76	28%	194	72%		
60	395	18	0.95	57	21%	213	79%		

**Footnotes:**

- a. Queue storage equals 235' from Centre driveway to concierge desk for one valet lane (two entering lanes total with one dedicated to self-parking). An additional two lanes at 80' per lane are provided at the porte-cochere where valet pick-up occurs. Assuming 22' of storage per vehicle (235'+80'+80' = 395'; 395'/22'=18 spaces available for queue storage).
- b. Utilization factor taken from Los Angeles Department of Transportation (LADOT) *Manual of Policies and Procedures: Driveway Design, Appendix B: Reservoir Needs vs. Traffic Intensity*, February 2003. Utilization factor based upon existing available storage (18 spaces).
- c. Maximum number of valet vehicles calculated as a probability of processing time, confidence level (95<sup>th</sup> percentile), and utilization factor.
- d. Maximum percentage of valeted vehicles divided by total number of vehicles (270 vehicles).
- e. Maximum percentage of self-park vehicles = 100% - % of valeted vehicles. Maximum number of self-park vehicles = 270 - # of valeted vehicles.
- f. Total number of vehicles = 615 maximum attendees ÷ 2.28 VOR = 270 vehicles.
- g. Maximum number of attendees fixed at 615 people.

Factors other than the valet/self-park operations which could potentially affect the flow along Auto Park Way are discussed in the following section.



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Figure 2

## Project Site Plan

LEXUS ESCONDIDO SPECIAL EVENTS - TRAFFIC MANAGEMENT PLAN

## 3.0 TRAFFIC MANAGEMENT PLAN

### 3.1 Context of the Traffic Management Plan

A Traffic Management Plan is generally developed for large-scale events or venues such as ballgames, concerts, theme parks etc. that attract visitors and audiences from different parts of a region, who not are familiar with the surrounding infrastructure, which in turn requires traffic control personnel to guide them. Since this project meets the criteria mentioned above, a Traffic Management Plan would be beneficial to patrons of The Centre.

The intent of the outlined TMP is to establish thresholds for traffic control measures based on the constraining factors previously mentioned in this document. As a part of the project approval, if no traffic issues are identified for a period of six (6) months or six (6) major ( $\geq 450$  people) events, whichever comes first, the TMP may be reduced or eliminated at the discretion of the City manager. Conversely, the City may reinstate the monitoring efforts if any traffic issues arise after the monitoring is suspended at the discretion of City manager.

### 3.2 The Plan

The following TMP presents an overview of procedures by which traffic issues relating to the occurrence of special events will be addressed. These procedures and management techniques are intended to control vehicular and pedestrian activity and minimize on-site/off-site traffic impacts to ensure a successful and positive experience for all The Centre patrons, as well as the general public and surrounding neighbors.

As shown in Table 1 of this document, the maximum number of attendees which could be generated by the site prior to the potential occurrence of backup queues on Auto Park Way would be 912 attendees assuming a 30-second valet service rate and 30/70 valet/self-park split (reflective of existing valet/self-park operations). Although 912 patrons could be processed on-site without potential interference with the operations on Auto Park Way, there are still other off-site constraints that would require traffic management measures to effectively direct the flow of special event traffic.

As previously mentioned, a Traffic Assessment Letter (TAL) has been prepared in conjunction with this TMP. As discussed in the TAL, in order to avoid to in/out vehicular congestion along Auto Park Way during the peak period for weekday commuter traffic as well as pedestrian/vehicular conflicts at The Centre driveway on school days, the measures shown in **Table 3** (*Table 5 of the TAL*) are proposed by the Project.

Utilizing the time-of-day constraints mentioned in *Section 2.2* of this document, in addition to the measures proposed by The Centre in Table 3 below, **Table 4** serves as a reference for the implementation of traffic control measures per the TMP.

**TABLE 3  
RECOMMENDED WEEKDAY & SCHOOL DAY TRAFFIC MEASURES  
ALL EVENT SIZES**

Event Sizes	Proposed Measures			
	Measure 1	Measure 2	Measure 3	Measure 4
	<b>Current On- &amp; Off-Site Circulation Plan</b>	<b>“School Blackout” No Event Start or End Times within 30 mins Prior or 1 hour After End of School Day</b>	<b>Implementation of the TMP (See Table 4)</b>	<b>1.5 Hour Window between Start and End Times of Events</b>
0 to 200 attendees	X	-	-	-
201 to 449 attendees	X	X	-	-
450 to 614 attendees	X	X	X	-
615 attendees	X	X	X	X

**General Notes:**

1. “X” = measure recommended.
2. Event sizes are cumulative. (e.g. two 200 person events = 400 people = Measures #1 and #2 are recommended.)

**TABLE 4  
TRAFFIC MANAGEMENT PLAN  
EVENTS ≥450 ATTENDEES**

Weekday Events Time of Day	Constraint	Traffic Management Plan
3:00PM	Pedestrian and Bicycle Activity at The Centre Driveway	During the peak arrival time between 2:00-3:00PM, in conjunction with the release of students at the nearby middle school, an experienced employee from The Centre’s professional parking services shall monitor and direct pedestrian and bicycle traffic across The Centre driveway through use of the Traffic Monitoring Report worksheets (See Figure 4) to reduce the potential for conflicts between pedestrians and vehicles.  Should any pedestrian/bicycle conflicts arise at the Project driveway, The Centre shall work with City staff to amend the TMP as necessary, to the satisfaction of the City manager.
6:00PM	Availability of Sufficient Gaps Due to Peak Eastbound Traffic on Auto Park Way	During the peak arrival time between 5:00-6:00PM, The Centre shall monitor the flow of westbound left-turns into The Centre driveway across eastbound traffic along Auto Park Way to evaluate the availability of sufficient gaps through use of the Traffic Monitoring Report worksheet (See Figure 4).  Should any deficiencies arise along Auto Park Way, The Centre shall work with City staff to amend the TMP as necessary, to the satisfaction of the City manager.
7:00PM	N/A	N/A
General	N/A	Provide signage at the back of the driveway queue during increased valet operations directing vehicles to the valet or self-park lane.
General	N/A	Provide vehicular access/directions on The Centre website. Full details on where to park, valet vs. self-park lane, area conditions such as pedestrian and bicycle activity, peak traffic conditions, etc.

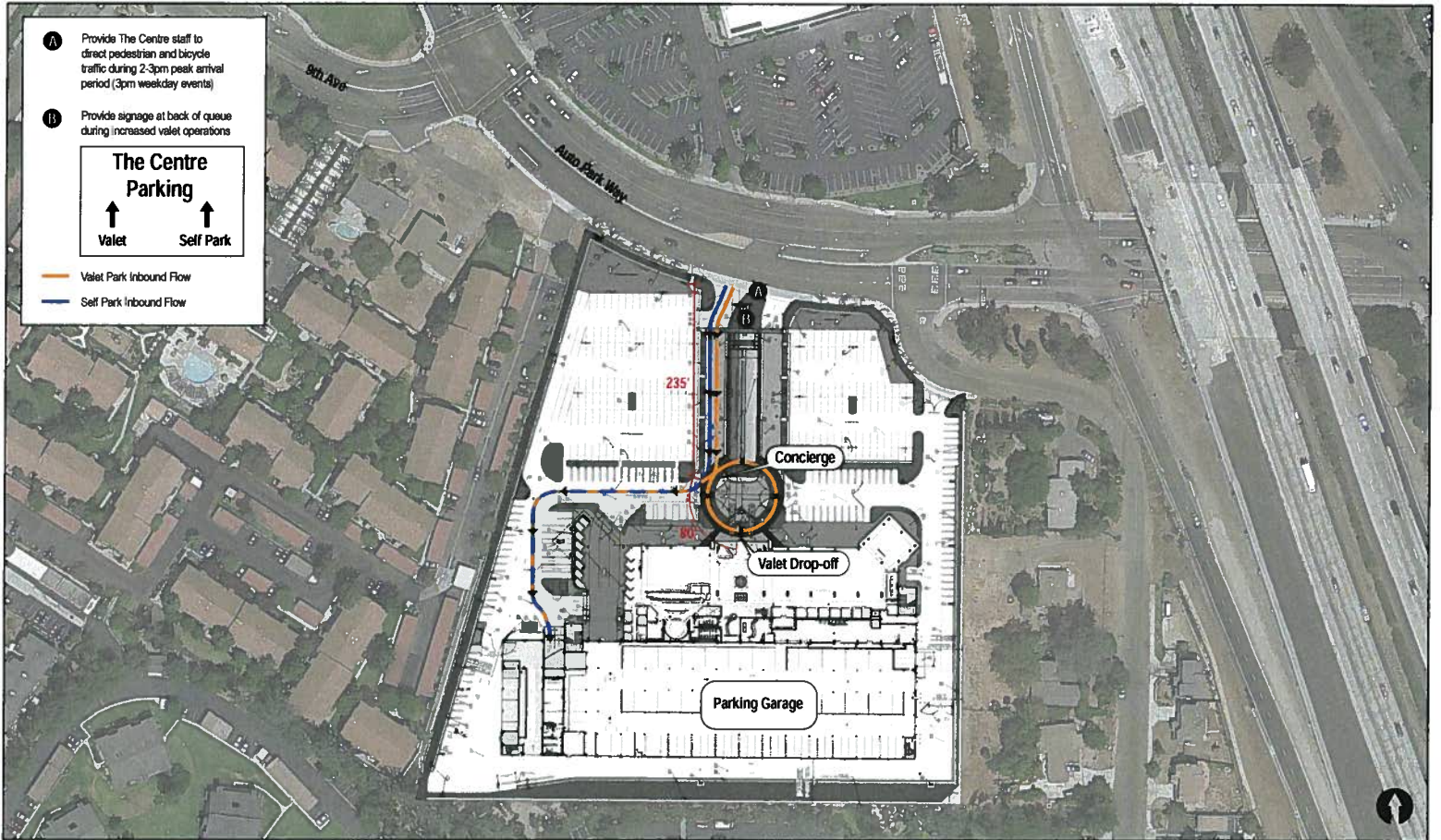
**Figure 3** presents the measures outlined in Table 4 above as part of the TMP.

### **3.3 Traffic Monitoring Report**

A Traffic Monitoring Report (TMR) will be prepared after a period of six (6) months or six (6) major events ( $\geq 450$  people) and submitted to City of Escondido for review. The 1<sup>st</sup> TMR is anticipated to be submitted in May 2014. The TMR will include field observations from the adopted Traffic Management Plan and highlight on- and off-site traffic issues that were observed. The report shall provide insight as to whether the adopted TMP is working or not. In addition, the TMR will include traffic congestion points (pedestrian and bicycle included), site internal circulation, any off-site traffic implications and other related items. **Figure 4** shows a sample data collection form.

The ultimate goal of these efforts is to ensure that no on-site/off-site traffic issues arise during the occurrence of special events. If the TMR reveals no significant traffic and the on-site operations are working to the satisfaction of the City manager, the monitoring efforts may be reduced or eliminated. Conversely, the City may reinstate the monitoring efforts if any traffic issues arise after the monitoring is suspended at the discretion of City manager and require reporting the results on a semi-annual basis.





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 M:12221/F:figures  
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 SIMSOT  
 PARK  
 GREENWAY  
 ENGINEERS

Figure 3

**Conceptual Traffic Management Plan**

LEXUS ESCONDIDO SPECIAL EVENTS - TRAFFIC MANAGEMENT PLAN

# TRAFFIC MONITORING REPORT

## EVENTS ≥ 450 ATTENDEES

Day of Week: \_\_\_\_\_

Date: \_\_\_\_\_

Event Start Time	Event End Time	Total # of Attendees	Total # of Vehicles	Total Valet/Vehicles	The Centre Staff Directing Pedestrian Traffic	Adequate Metering of EB Traffic on Auto Park Way Allowing WB Left Turns into the Driveway

**Notes:**

Yes  No  **Were there any off-site queuing issues onto Auto Park Way? If so, describe:**

Yes  No  **Were there any traffic circulation issues on-site? If so, describe:**

Yes  No  **Were there any pedestrian or bicycle conflicts with inbound vehicles? If so, describe:**



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Date: 5/28/13

**Figure 4**

### Sample Data Collection Form