Kimley-Horn
and Associates, Inc.

September 21, 2011

Suite 210
2080 East Flamingo Road
Las Vegas, Nevada
89119

City of Las Vegas Department of Planning
Development Services Center
333 North Rancho Drive
Las Vegas, NV 89106

Re: Waiver of Standard – Parking
Las Vegas Water Park
Justification Letter

To Whom It May Concern:

The Las Vegas Water Park is submitting a use application for a water park complex located west of South Rancho Drive, north of Desert Inn Road, and generally south of Mead Avenue and east of Rigel Avenue within the City of Las Vegas.

The water park is proposing to redevelop 33.15 acres of existing M-Industrial zoned land. The redevelopment will consist of the demolition of existing commercial and industrial buildings that currently occupy the site. At full build out the proposed water is to include approximately 17 acres of water park and about 16 acres of surface parking.

Based on Title 19 the water park land use has a parking requirement of one space per 3 persons for which the facility is designed to accommodate at maximum capacity. The proposed water park is being designed to accommodate a total of 7,466 patrons on 17.4 acres south of Sirius Avenue. With a maximum capacity of 7,466 patron the parking requirement is 2,448 spaces.

7466 / 3 = 2,488 parking spaces

The Institute of Transportation Engineers (ITE) *Parking Generation*, 4th Edition, provides parking demand information under Land Use Code 414 - Water Slide Park for water slide parks containing water slides, wading pools, refreshment stands and picnic areas. This use is consistent with the proposed development. Excerpts from ITE's *Parking Generation,* 4th Edition, are attached.

The provided ITE parking information is based on from two reported studies. The two studies are from Garland and North Richland Hills, Texas. The ITE

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information provides a weekday demand of approximately 50 vehicles per acre and a Saturday demand of about 75 vehicles per acre. With a water park area of 17.4 acres south of Sirius this would calculate a parking demand of:

75 veh/ac * 17.4 ac = 1,305 parking spaces

This parking demand is some 1,183 spaces less than the city code calculation.

The developer has been working with the water park industry in the designing of the proposed facilities. According to the attached letter from CBK, the observed vehicle occupancy at their existing water parks has been found to be between 3.5 to 4.0 persons per vehicle. Using a vehicle occupancy of 3.5 people per vehicle and a maximum water park capacity of 7,466 patrons, the number of required parking spaces would be 2,128.

7,466 max patrons / 3.5 people per vehicle = 2,128 parking spaces

For a vehicle occupancy of 4.0 people per vehicle and a maximum water park capacity of 7,466 patrons the number of required parking spaces would be 1,866.

7,466 max patrons / 4.0 people per vehicle = 1,866 parking spaces

The proposed project is providing a total of 2,125 surface parking spaces on 16 acres of land north of the water park facilities.

Recognizing the parking demands for water park facilities as reported by ITE and the vehicle occupancy data from the water park industry, it is our opinion that a parking waiver of 14.6% from the development standard to provide a total of 2,125 parking spaces where 2,488 would be required is justified and would not impact the adjacent land uses and public roadways.

Sincerely,

Kenneth W. Ackeret, P.E., PTOE, Ph.D.

PROFESSIONAL ENGINEER - STATE OF NEVADA
Kenneth W. Ackeret
Exp: 12/31/12
CIVIL
9/21/11
No. 6227

Attachments: ITE Parking Generation 4th Edition, Land Use Code 414
CBK letter received 9/21/2011

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Land Use: 414
Water Slide Park

Description

Water slide parks contain water slides, wading pools, refreshment stands and picnic areas.

Database Description

The database consisted of three suburban sites. Two sites provided weekday and Saturday parking demand. The third site provided Sunday parking demand.

- Average size: 32.5 acres.
- Average parking supply ratio: 84.5 spaces per acre (two study sites).

Weekday parking demand was observed at two study sites. One site was observed for the hours between 10:00 a.m. and 8:00 p.m. The other site was observed for the hours between 2:00 and 7:00 p.m. Average weekday parking demand ratio was 49.70 vehicles per acre. The weekday peak parking demand period occurred between the hours of 12:00 and 4:00 p.m.

Saturday parking demand was observed at two study sites. One site was observed for the hours between 10:00 a.m. and 9:00 p.m. The other site was observed for three nonconsecutive hours between 2:00 and 7:00 p.m. The average Saturday parking demand ratio was 72.90 vehicles per acre. The Saturday peak parking demand period occurred between the hours of 2:00 and 4:00 p.m.

Sunday parking demand was observed at one study site. The count was submitted for a single hour of observation between 3:00 and 4:00 p.m. The Sunday parking demand ratio was 12.00 vehicles per acre.

The following table presents the time-of-day distribution of parking demand, based on data from two sites.

Based on Vehicles per 1,000 sq. ft. GFA	*Weekday*		*Saturday*	
Hour Beginning	Percent of Peak Period	Number of Data Points	Percent of Peak Period	Number of Data Points
12:00–4:00 a.m.	–	0	–	0
5:00 a.m.	–	0	–	0
6:00 a.m.	–	0	–	0
7:00 a.m.	–	0	–	0
8:00 a.m.	–	0	–	0
9:00 a.m.	–	0	–	0
10:00 a.m.	21	1	10	1
11:00 a.m.	72	1	36	1
12:00 p.m.	91	1	60	1
1:00 p.m.	100	1	76	1
2:00 p.m.	97	2	93	1
3:00 p.m.	94	2	100	1
4:00 p.m.	84	2	91	1
5:00 p.m.	71	2	78	1
6:00 p.m.	54	2	66	1
7:00 p.m.	26	1	51	1
8:00 p.m.	–	0	32	1
9:00 p.m.	–	0	–	0
10:00 p.m.	–	0	–	0
11:00 p.m.	–	0	–	0

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Land Use: 414
Water Slide Park

Study Sites/Years

Garland, TX (1983); Arlington, TX (2008); North Richland Hills, TX (2008)

4th Edition Source Number

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